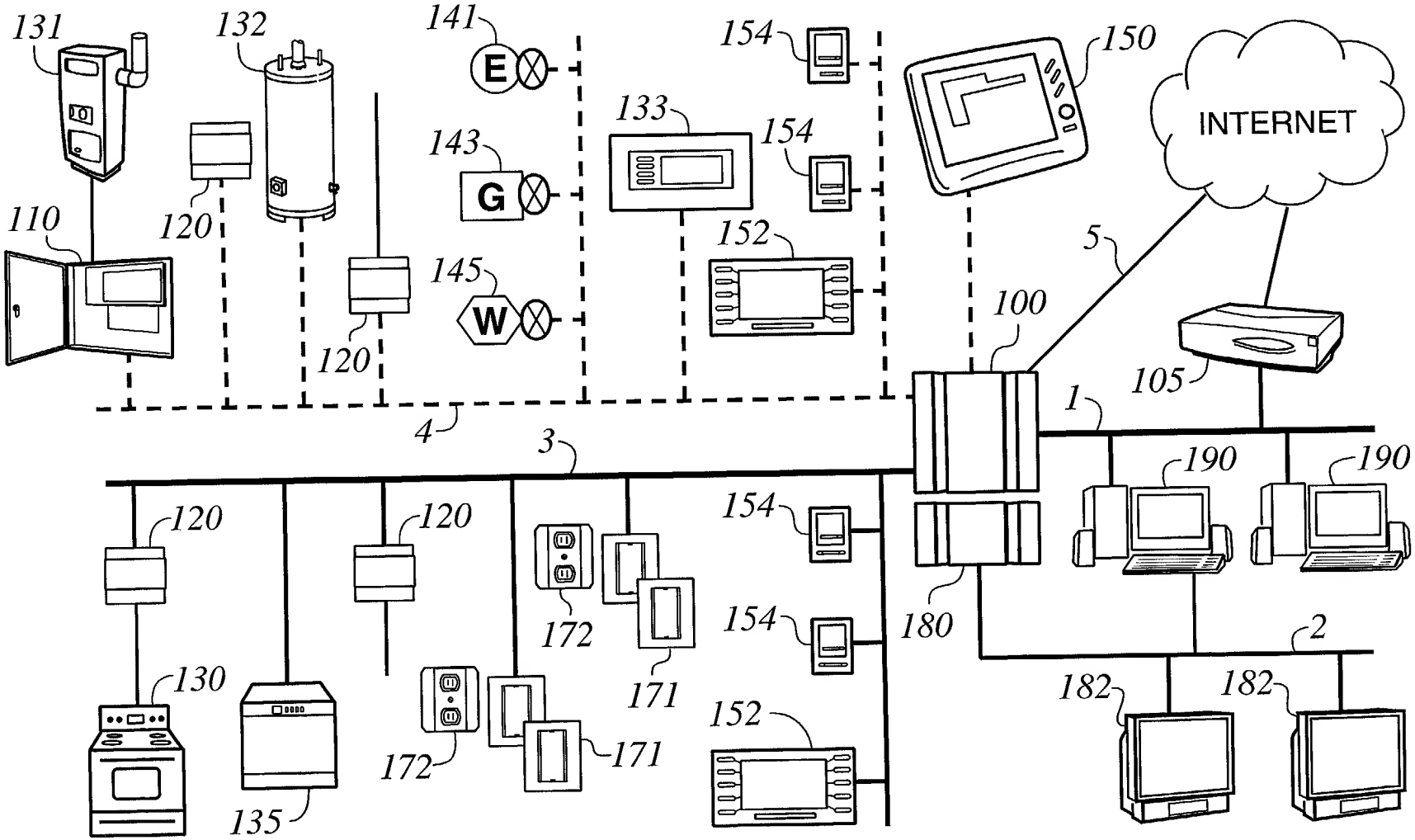

131
132
141
154
150
INTERNET
E
133
154
143
G
110
120
120
152
5
145
W
100
105
120
4
3
1
190
190
120
120
154
172
154
180
2
130
154
182
182
172
171
152
171
135

FIG. 1

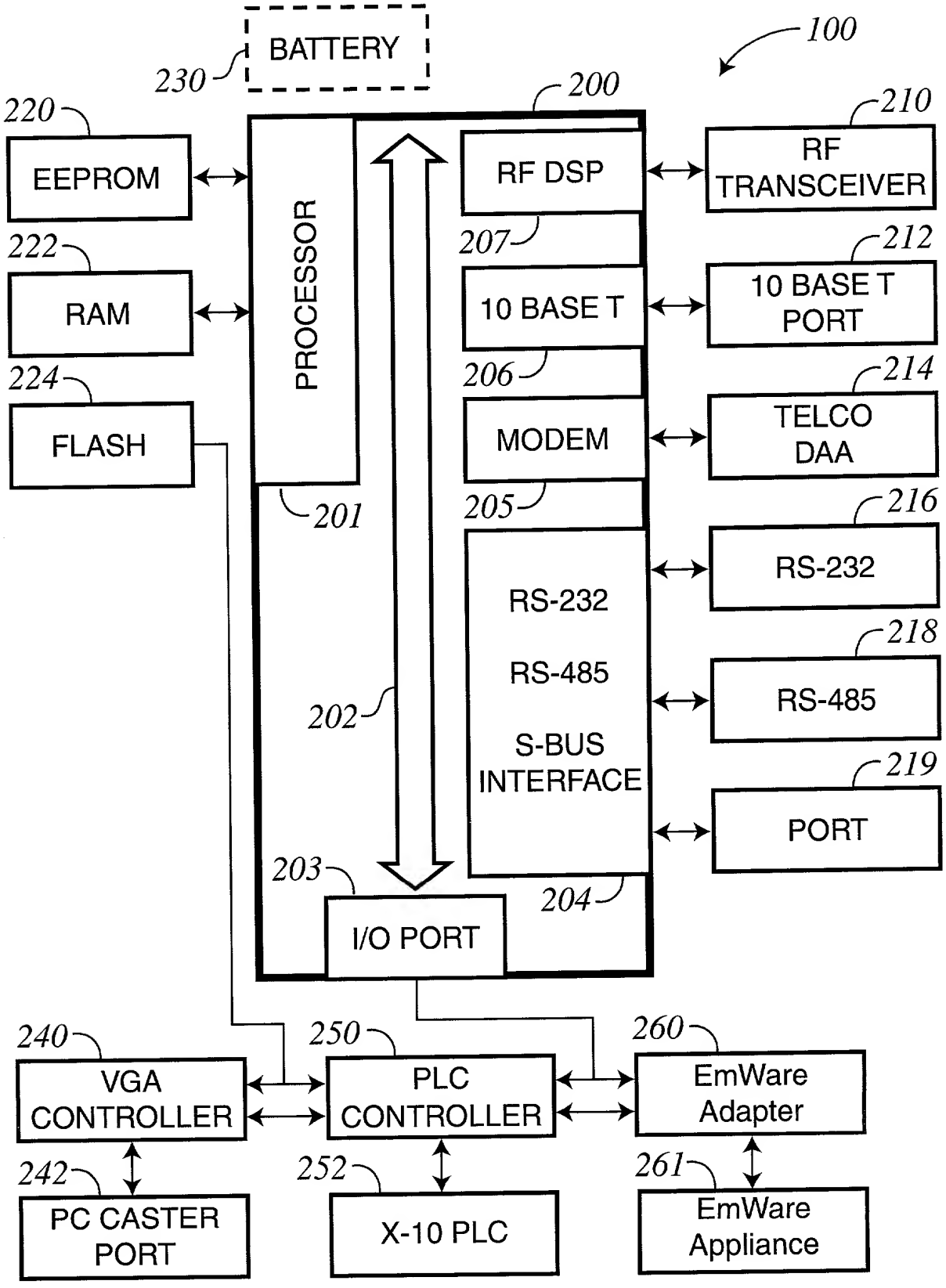

BATTERY
230
100
200
220
EEPROM
222
RAM
224
FLASH
PROCESSOR
201
202
203
I/O PORT
204
RF DSP
207
10 BASE T
206
MODEM
205
RS-232
RS-485
S-BUS
INTERFACE
210
RF
TRANSCEIVER
212
10 BASE T
PORT
214
TELCO
DAA
216
RS-232
218
RS-485
219
PORT
240
VGA
CONTROLLER
242
PC CASTER
PORT
250
PLC
CONTROLLER
252
X-10 PLC
260
EmWare
Adapter
261
EmWare
Appliance

FIG. 2

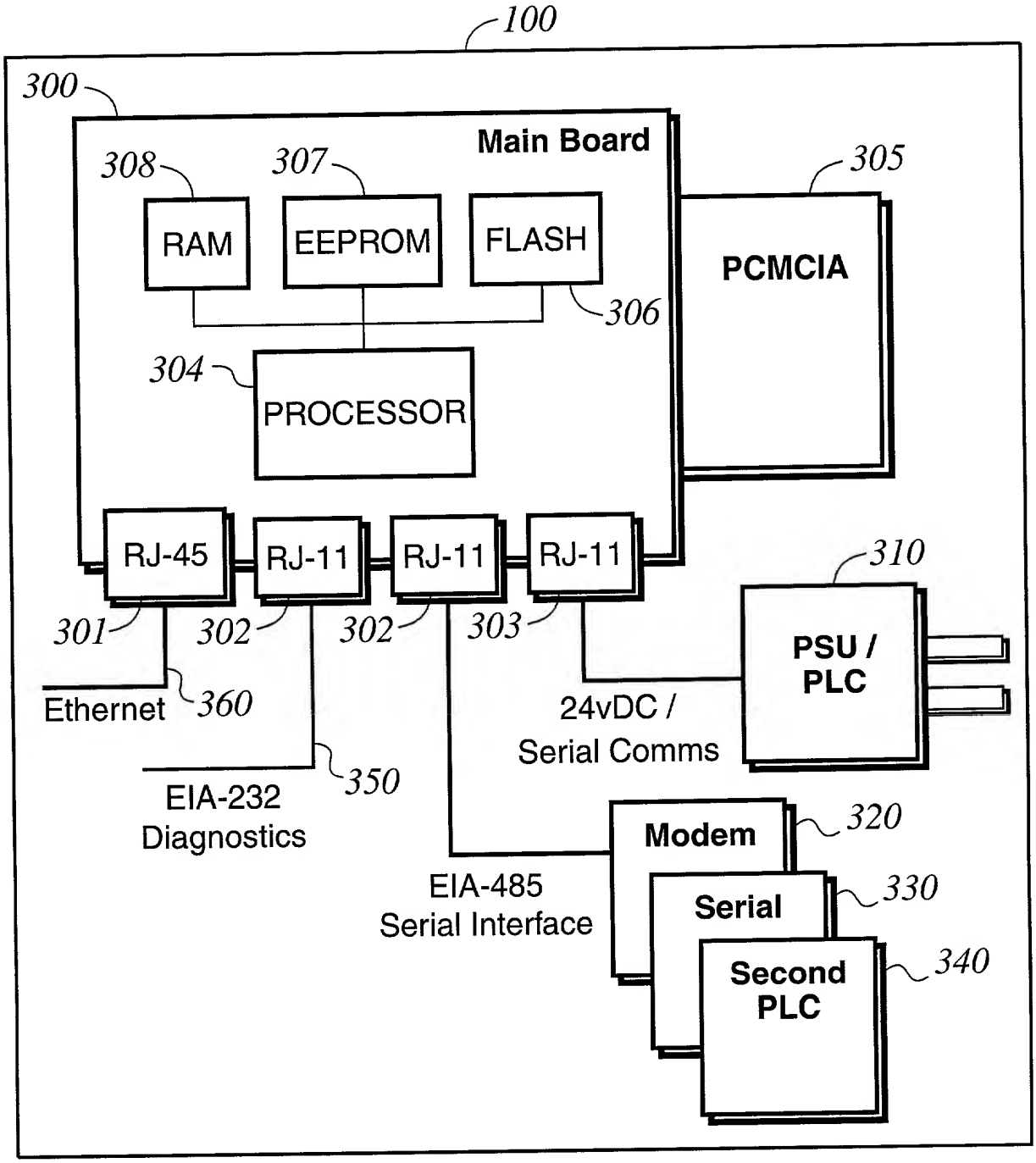

100
300
Main Board
308
RAM
307
EEPROM
FLASH
306
305
PCMCIA
304
PROCESSOR
RJ-45
RJ-11
RJ-11
RJ-11
301
302
302
303
310
PSU / PLC
Ethernet
360
24vDC / Serial Comms
350
EIA-232 Diagnostics
Modem
320
EIA-485 Serial Interface
Serial
330
Second PLC
340

FIG. 3

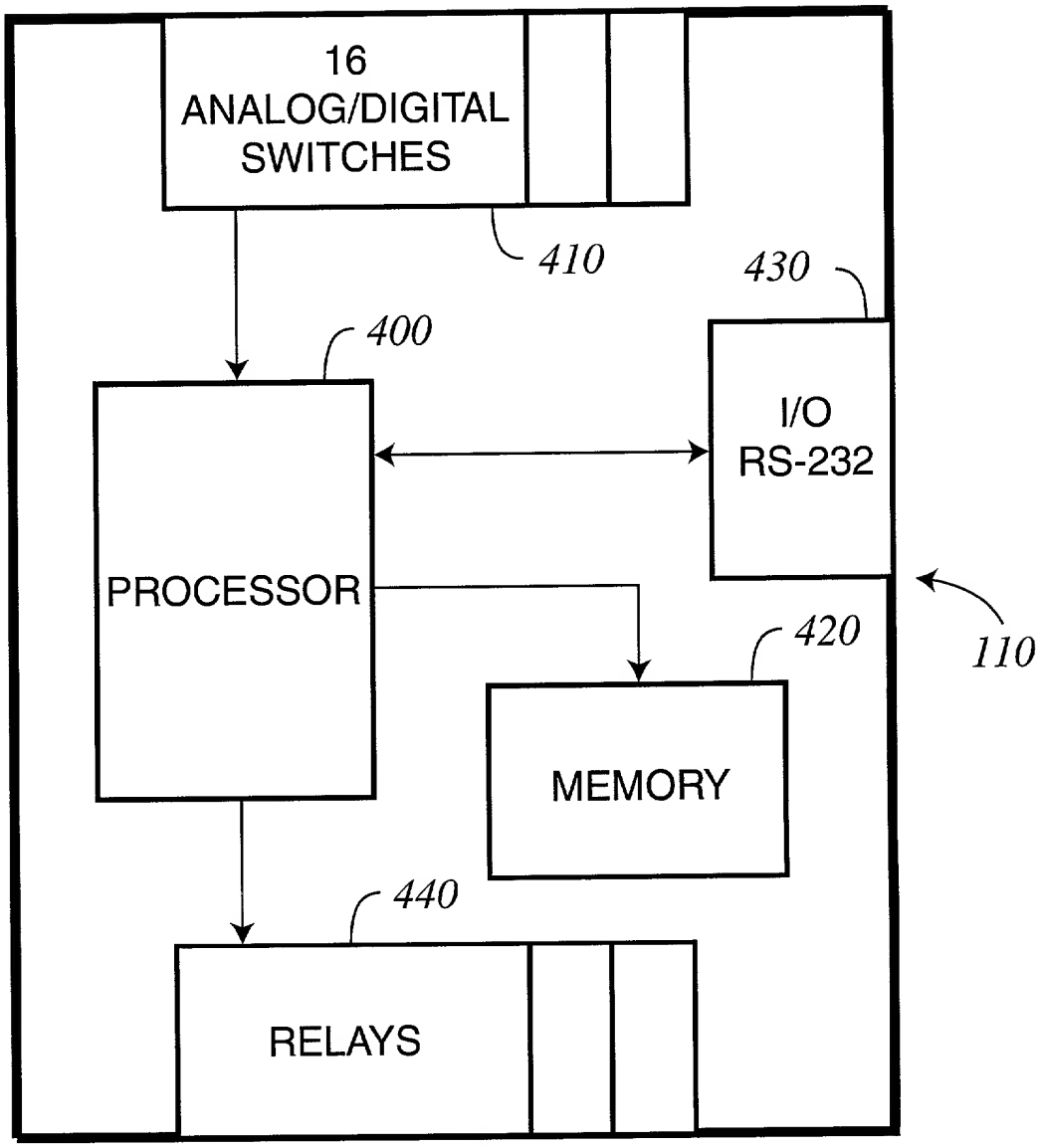

16
ANALOG/DIGITAL
SWITCHES
410
430
400
I/O
RS-232
PROCESSOR
420
110
MEMORY
440
RELAYS

FIG. 4

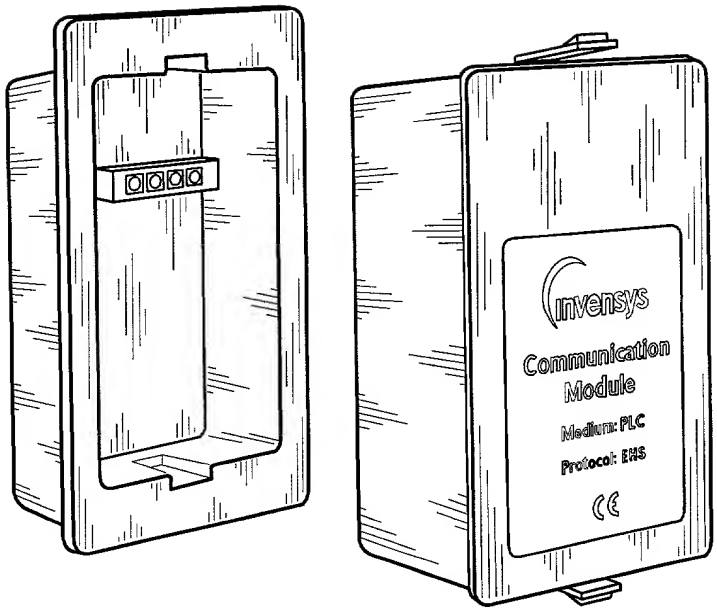


FIG. 5

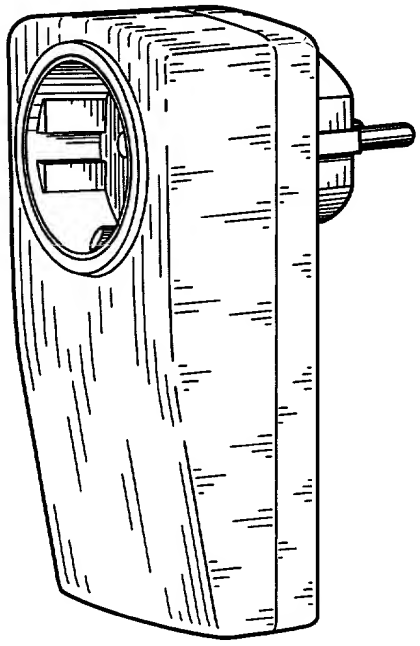


FIG. 6a

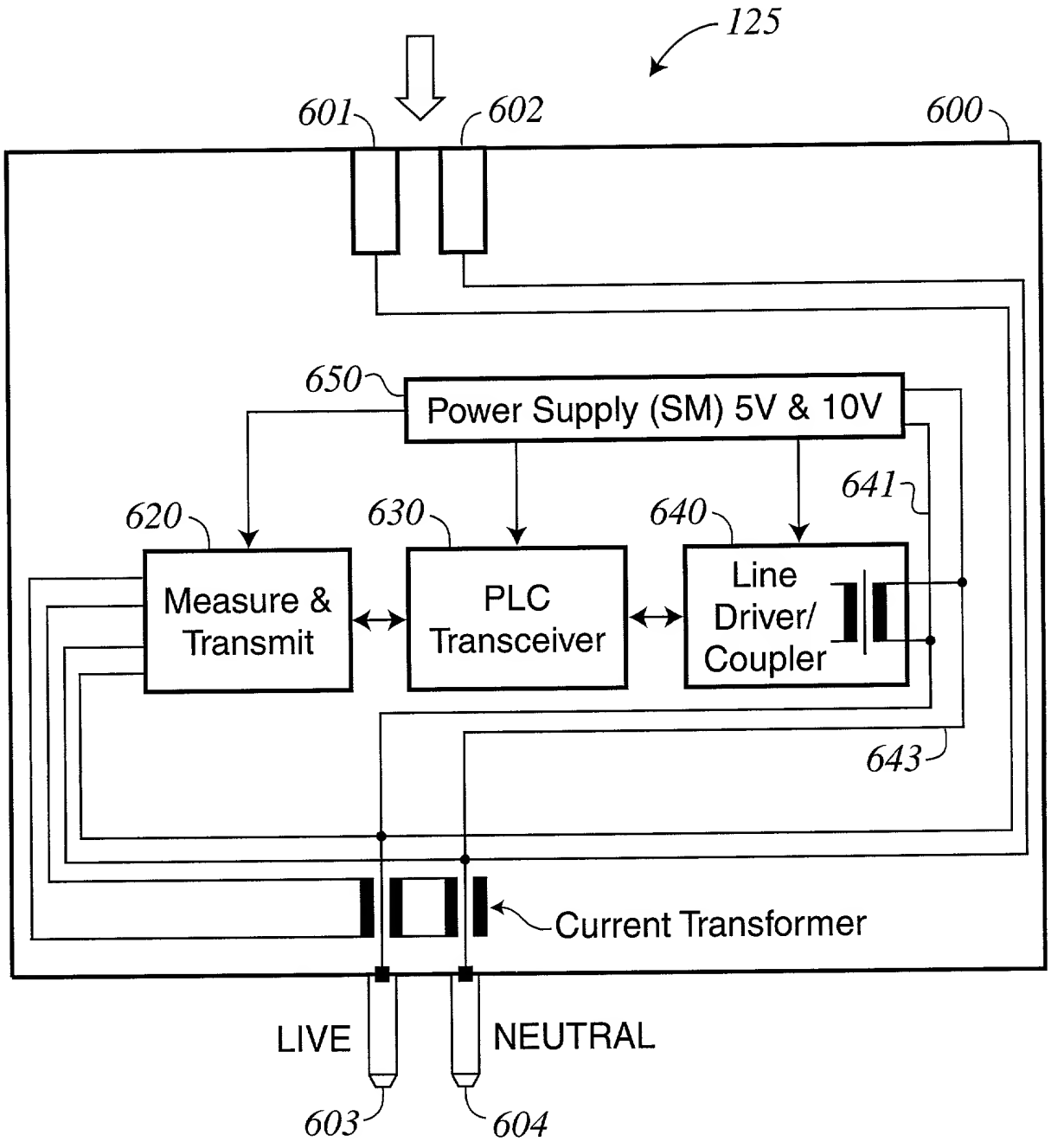

125
601
602
600
650
Power Supply (SM) 5V & 10V
641
620
630
640
Measure & Transmit
PLC Transceiver
Line Driver/ Coupler
643
Current Transformer
LIVE
NEUTRAL
603
604

FIG. 6b

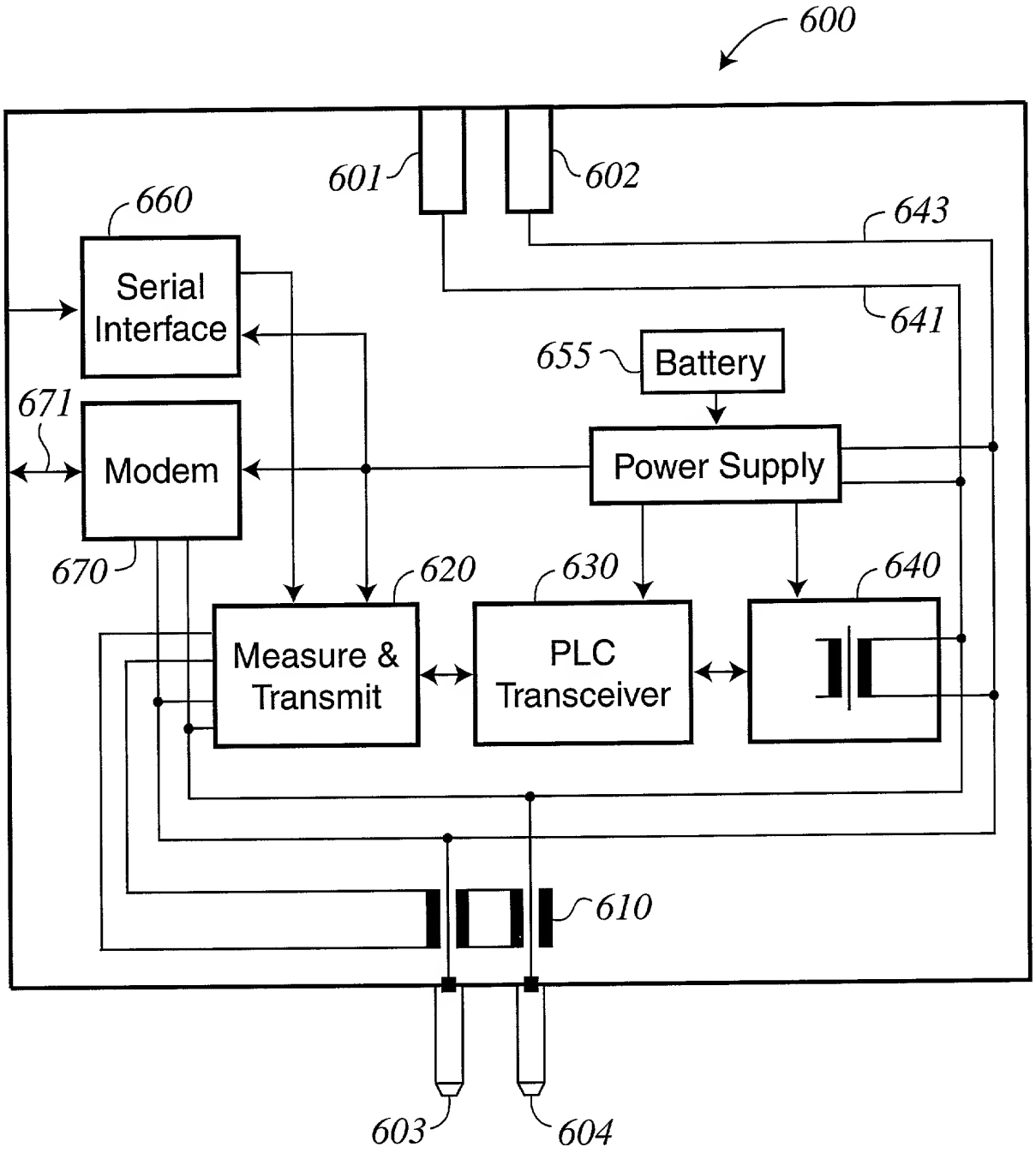

600
601
602
643
641
660
Serial Interface
655
Battery
671
Modem
Power Supply
670
620
630
640
Measure & Transmit
PLC Transceiver
610
603
604

FIG. 6c

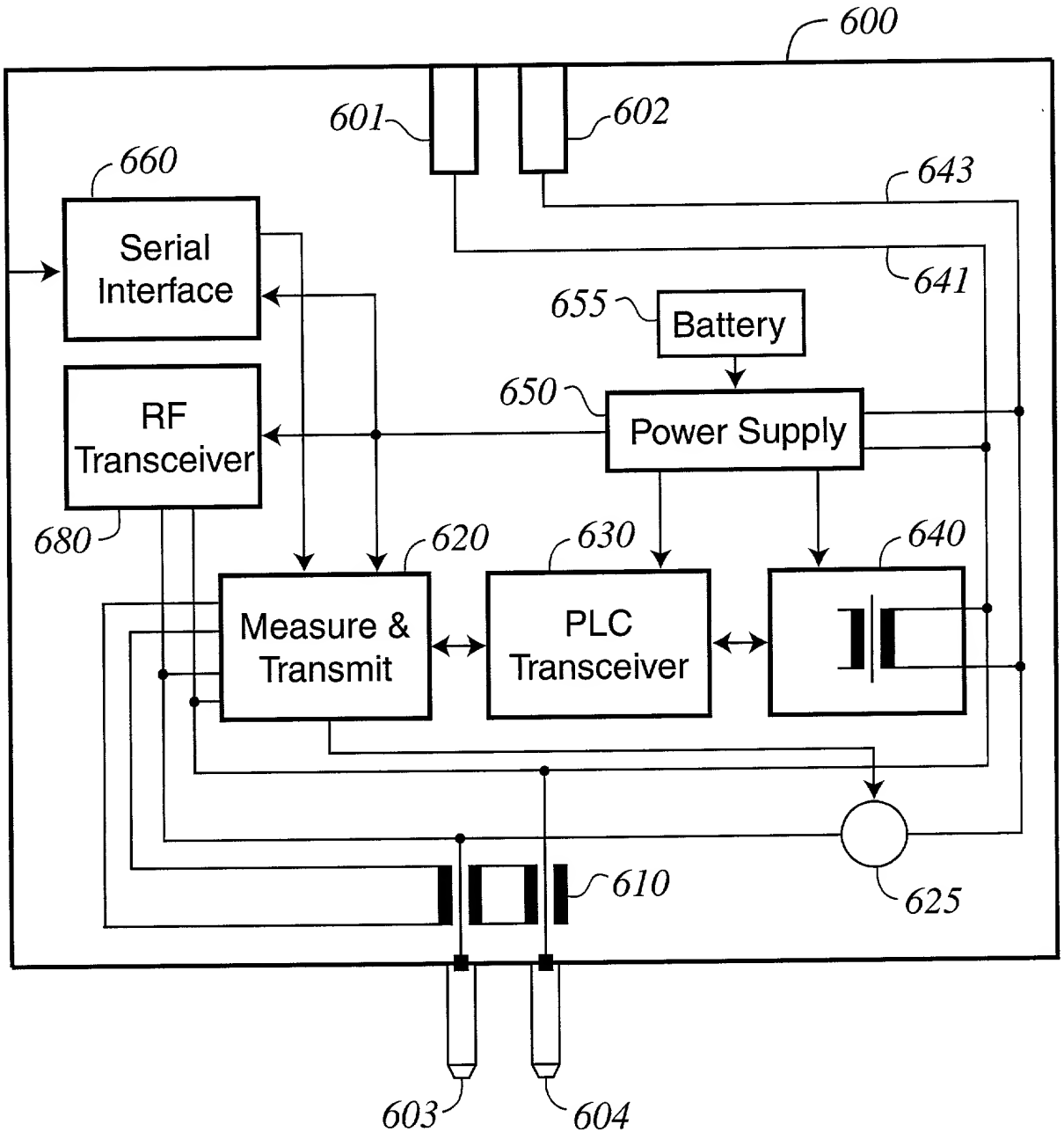

600
601
602
660
643
Serial Interface
641
655
Battery
650
RF Transceiver
Power Supply
680
620
630
640
Measure & Transmit
PLC Transceiver
610
625
603
604

FIG. 6d

FIG. 7a

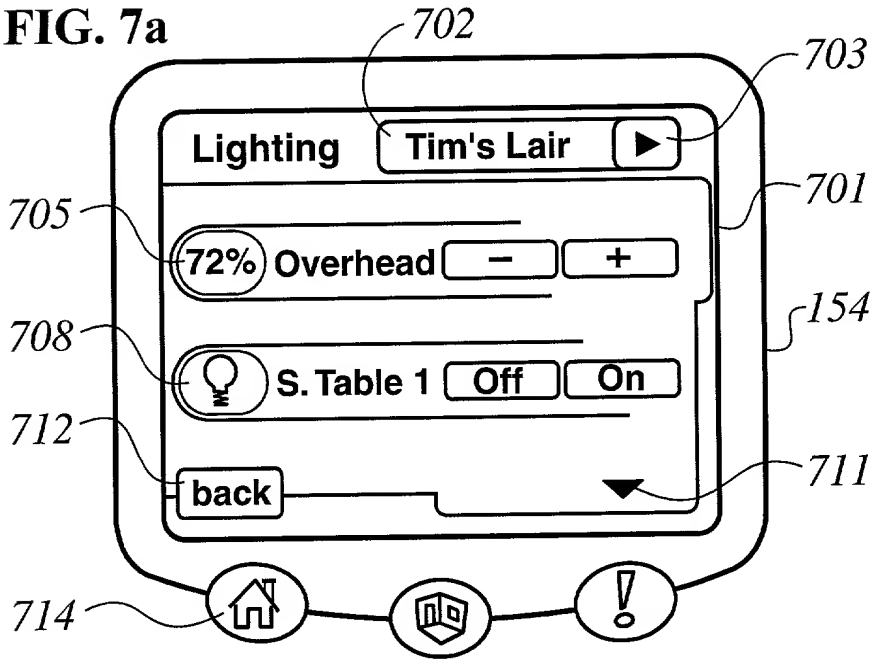
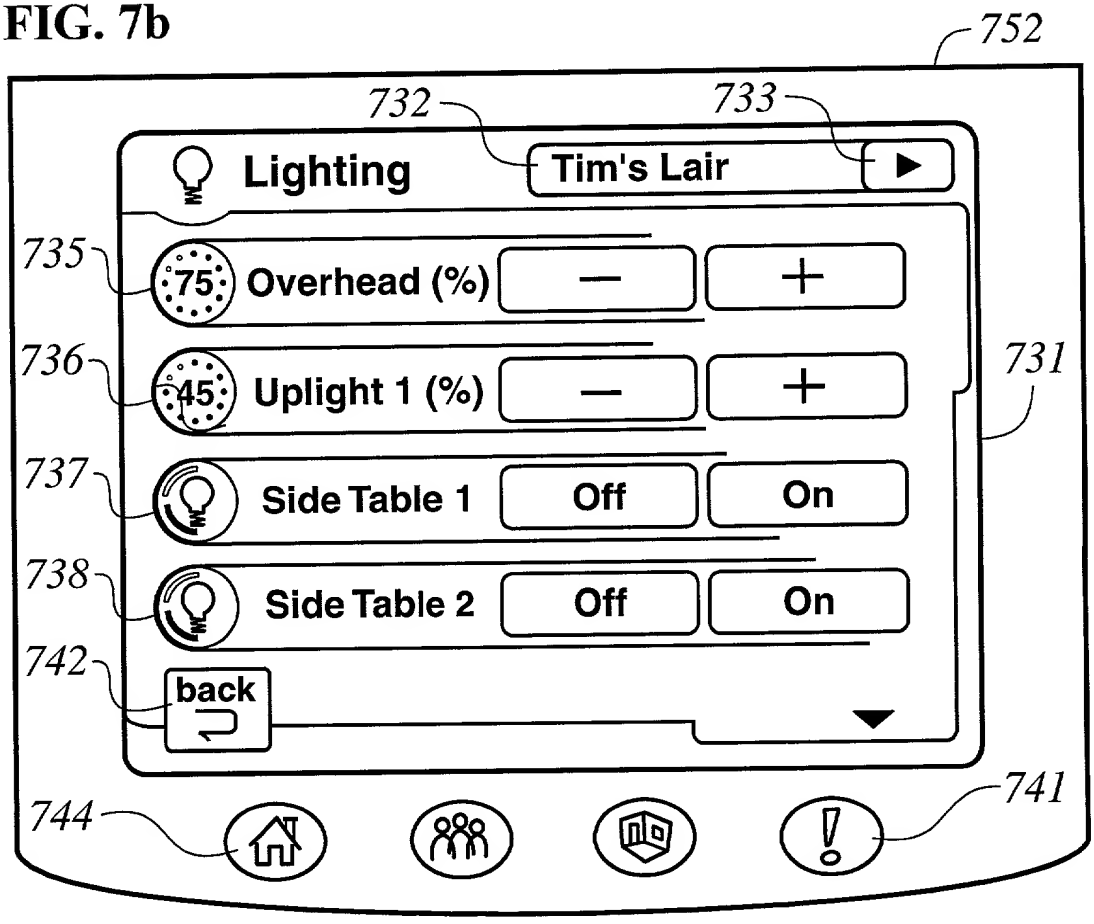

702
703
Lighting
Tim's Lair
701
705
72%
Overhead
−
+
154
708
S. Table 1
Off
On
712
back
711
714

FIG. 7b


752
732
733
Lighting
Tim's Lair
735
75
Overhead (%)
−
+
736
45
Uplight 1 (%)
731
737
Side Table 1
Off
On
738
Side Table 2
Off
On
742
back
744
741

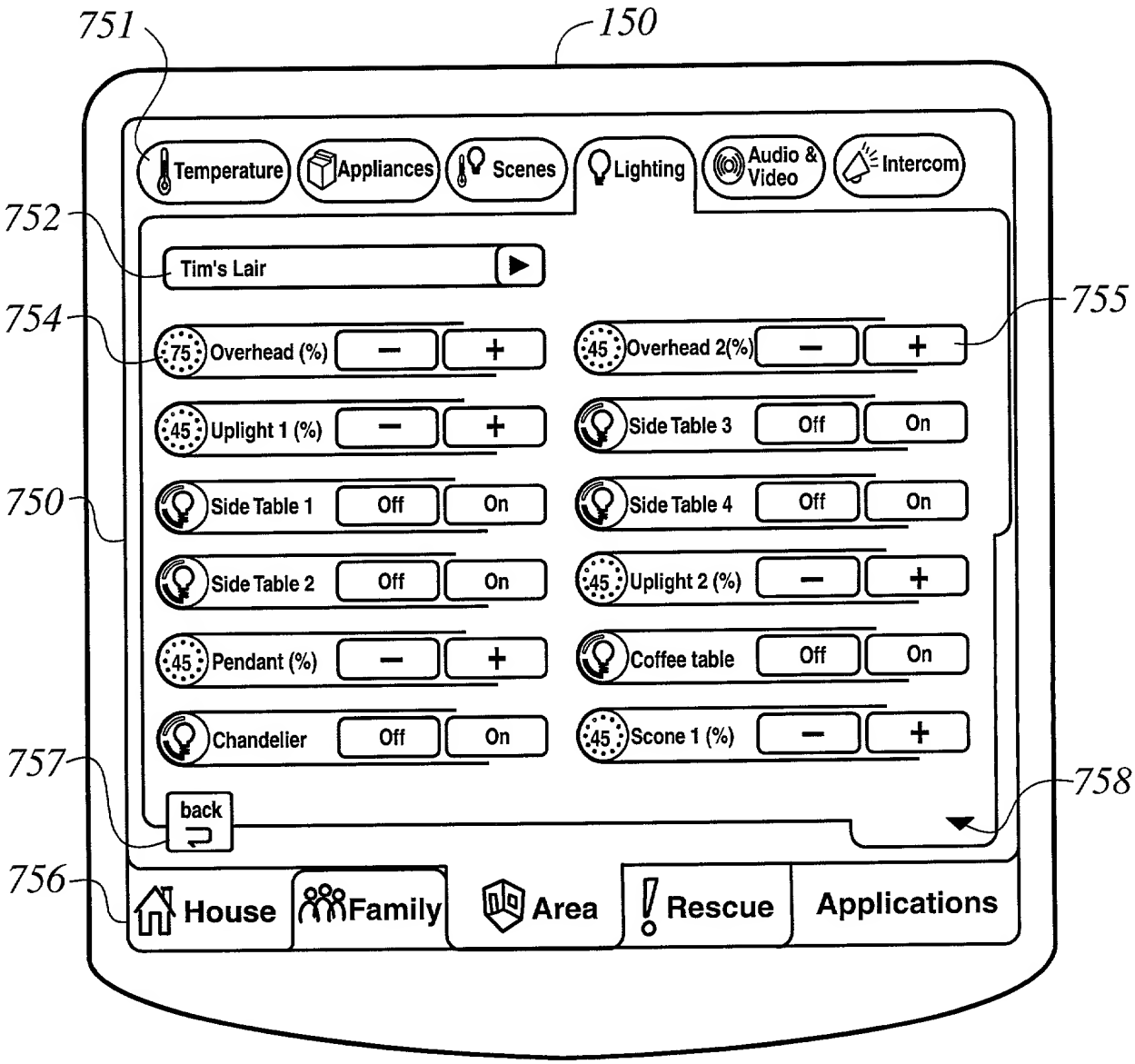

751
150
Temperature
Appliances
Scenes
Lighting
Audio & Video
Intercom
752
Tim's Lair
754
75 Overhead (%)
45 Uplight 1 (%)
Side Table 1 Off On
Side Table 2 Off On
45 Pendant (%)
Chandelier Off On
755
45 Overhead 2(%)
Side Table 3 Off On
Side Table 4 Off On
45 Uplight 2 (%)
Coffee table Off On
45 Scone 1 (%)
750
757
back
758
756
House
Family
Area
Rescue
Applications

FIG. 7c

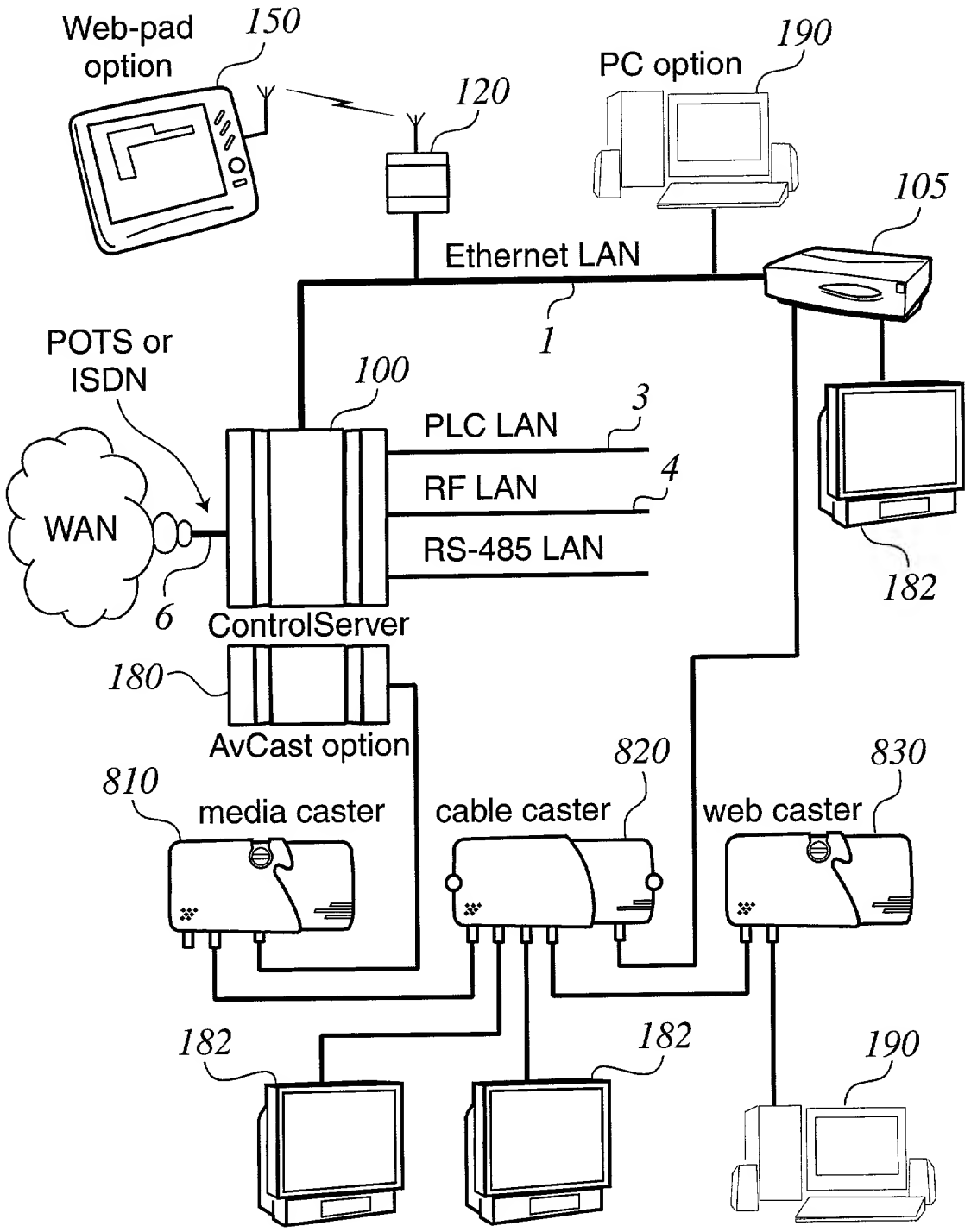

Web-pad option
150
120
PC option
190
105
Ethernet LAN
1
POTS or ISDN
100
3
PLC LAN
4
RF LAN
RS-485 LAN
WAN
6
ControlServer
182
180
AvCast option
810
media caster
820
cable caster
830
web caster
182
182
190

FIG. 8

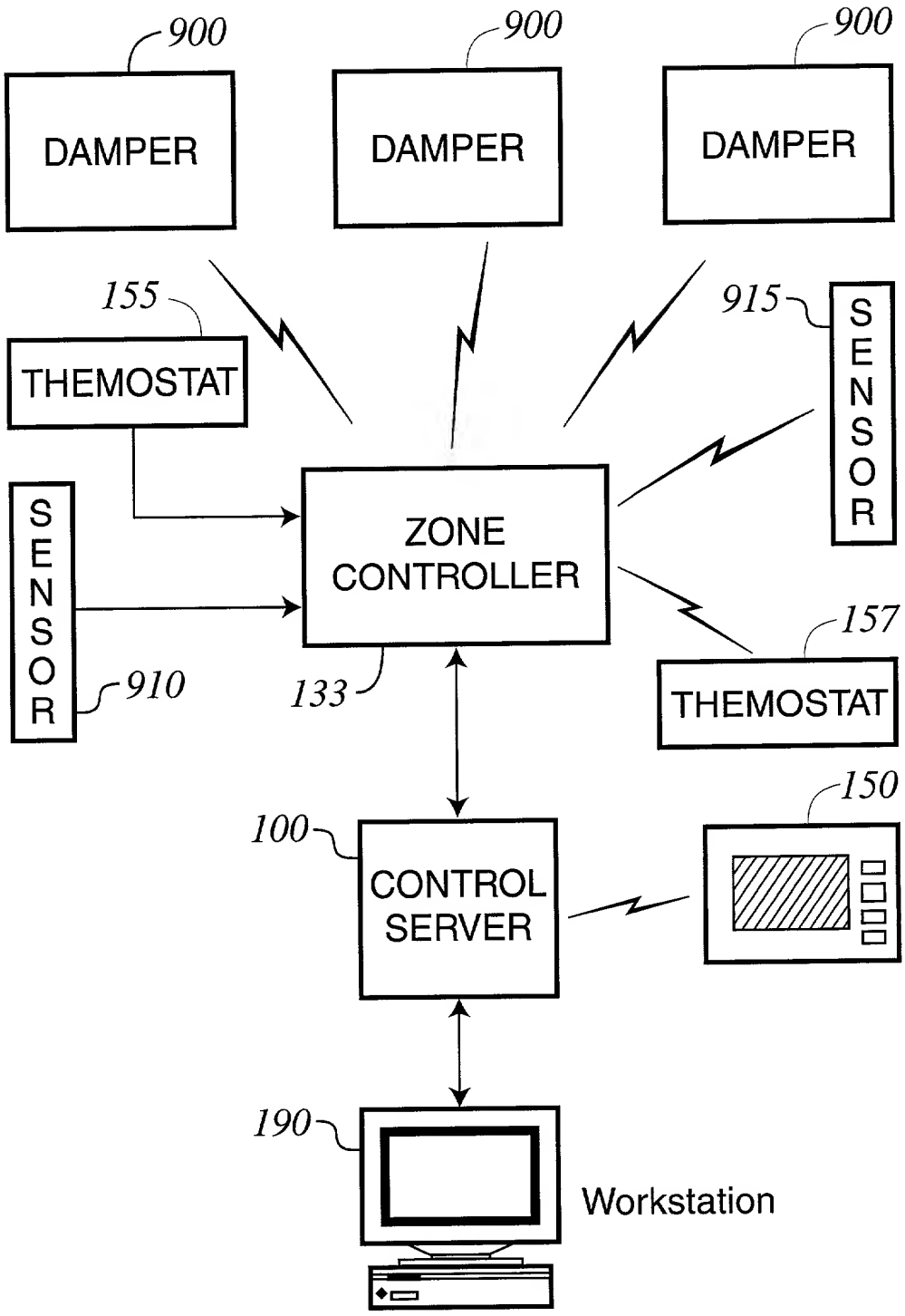

900
DAMPER
900
DAMPER
900
DAMPER
155
THEMOSTAT
915
SENSOR
SENSOR
910
ZONE CONTROLLER
133
157
THEMOSTAT
150
100
CONTROL SERVER
190
Workstation

FIG. 9

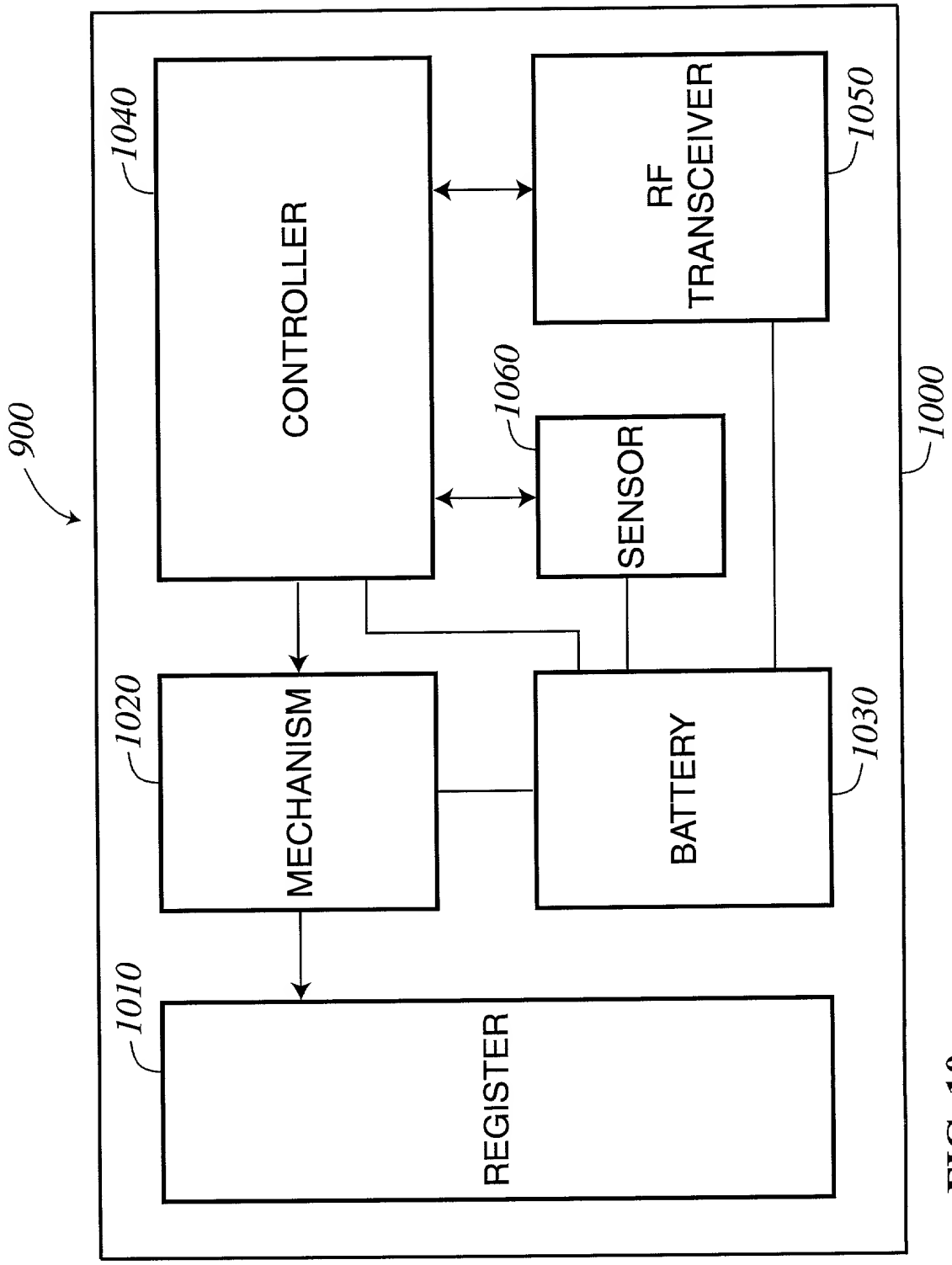

900
1000
1040
CONTROLLER
1050
RF TRANSCEIVER
1060
SENSOR
1020
MECHANISM
1030
BATTERY
1010
REGISTER

FIG. 10

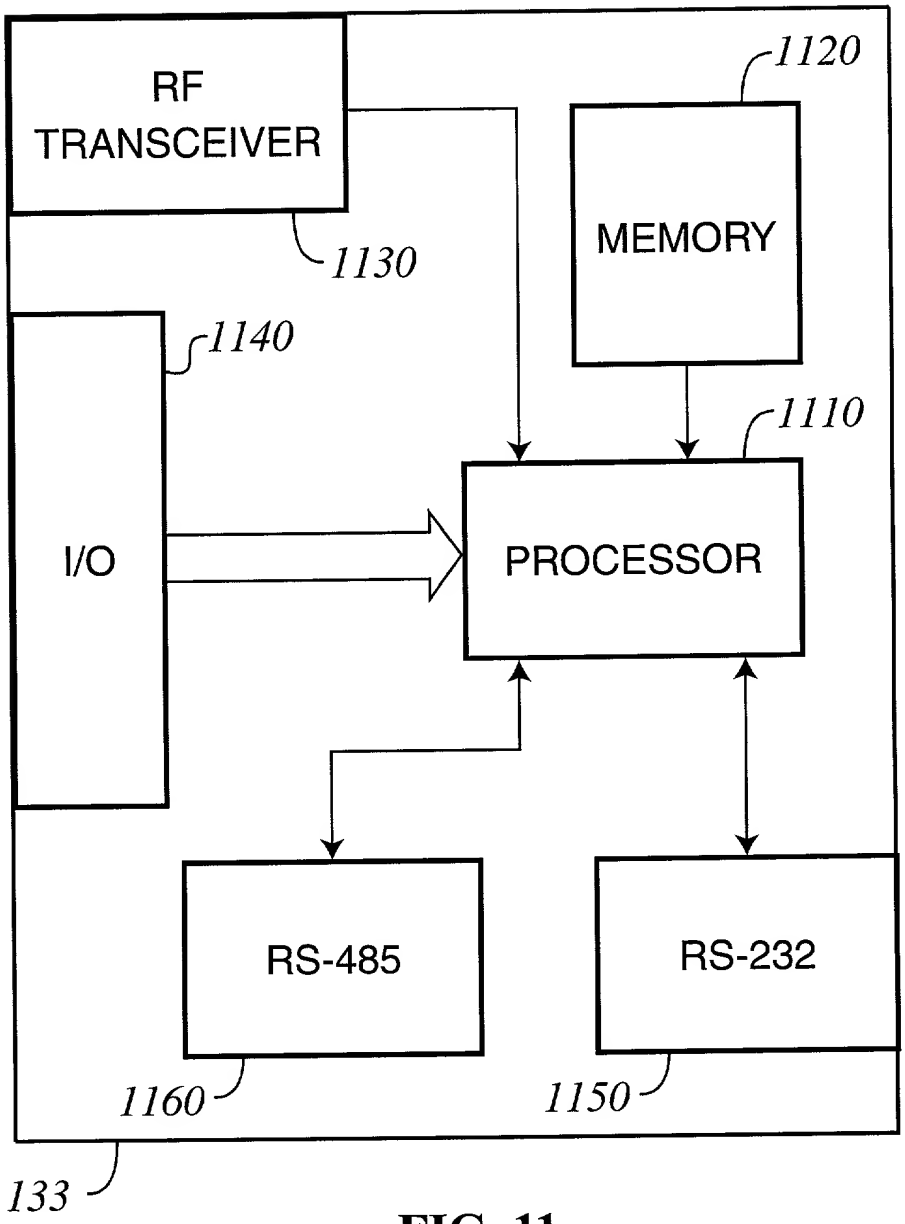

RF
TRANSCEIVER
1130
1120
MEMORY
1140
I/O
1110
PROCESSOR
RS-485
1160
RS-232
1150
133

FIG. 11

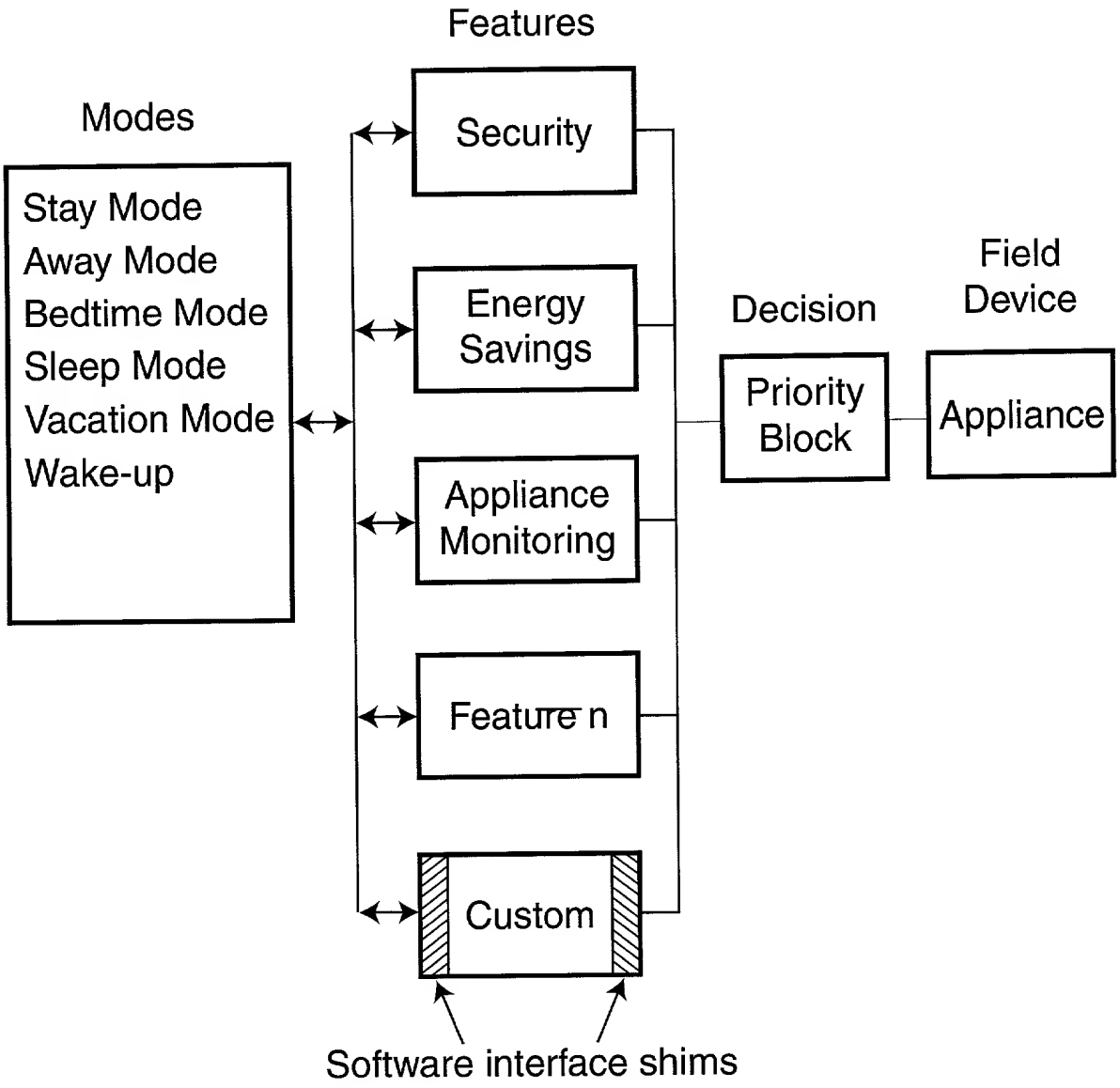

Features
Modes
Security
Stay Mode
Away Mode
Bedtime Mode
Sleep Mode
Vacation Mode
Wake-up
Energy Savings
Decision
Field Device
Priority Block
Appliance
Appliance Monitoring
Feature n
Custom
Software interface shims

FIG. 12

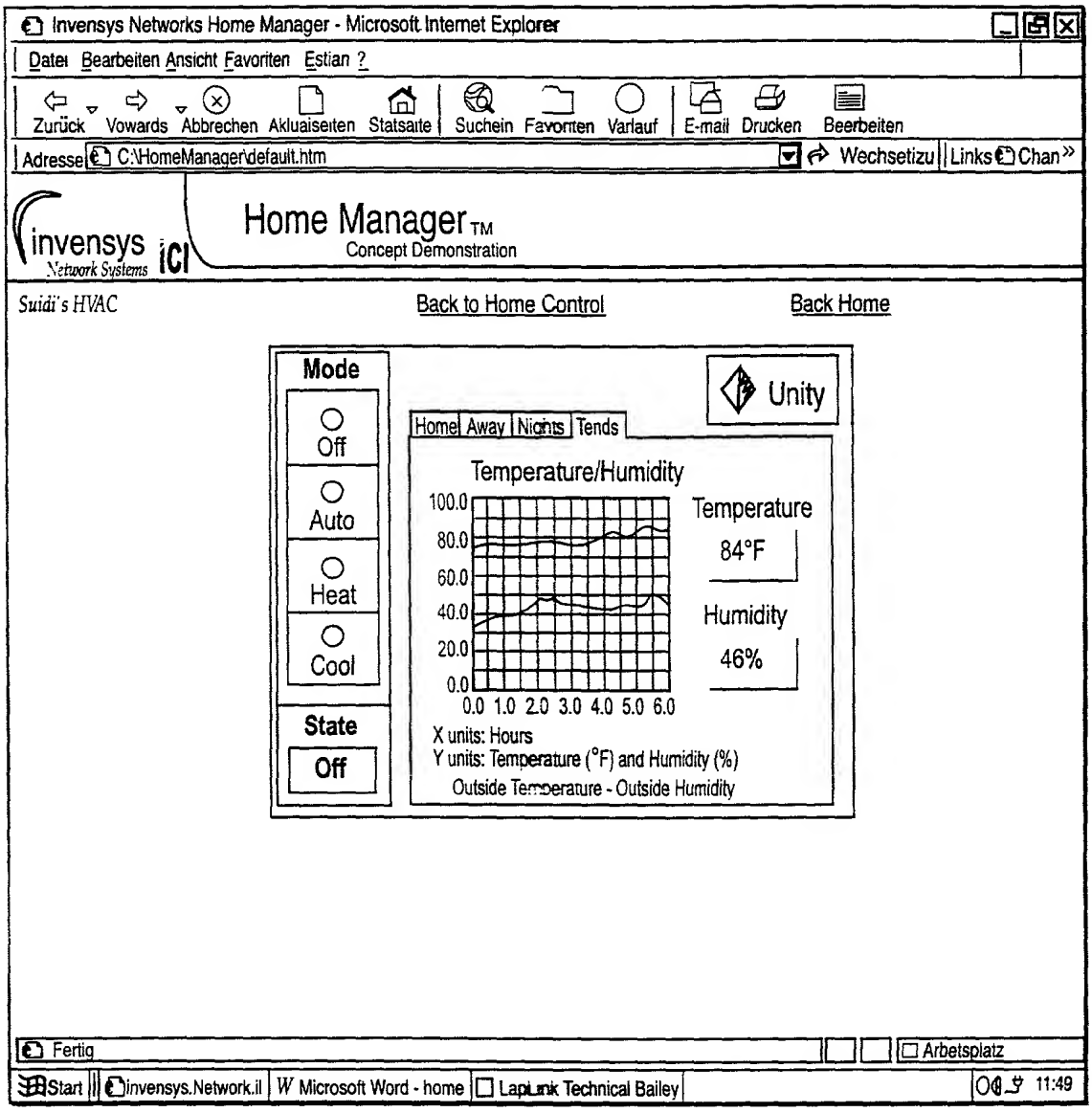

Invensys Networks Home Manager - Microsoft Internet Explorer
Datei Bearbeiten Ansicht Favoriten Extras ?
Zurück Vowards Abbrechen Akluaiseiten Statsaite Suchein Favoriten Varlauf E-mail Drucken Beerbeiten
Adresse C:\HomeManager\default.htm
Wechsetizu Links Chan
invensys Network Systems
Home Manager TM
Concept Demonstration
Suidi's HVAC
Back to Home Control
Back Home
Mode
Off
Auto
Heat
Cool
State
Off
Unity
Home Away Nights Tends
Temperature/Humidity
100.0
80.0
60.0
40.0
20.0
0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Temperature
84°F
Humidity
46%
X units: Hours
Y units: Temperature (°F) and Humidity (%)
Outside Temperature - Outside Humidity
Fertig
Arbeitsplatz
Start
invensys.Network.il
Microsoft Word - home
LapLink Technical Bailey
11:49

FIG. 13

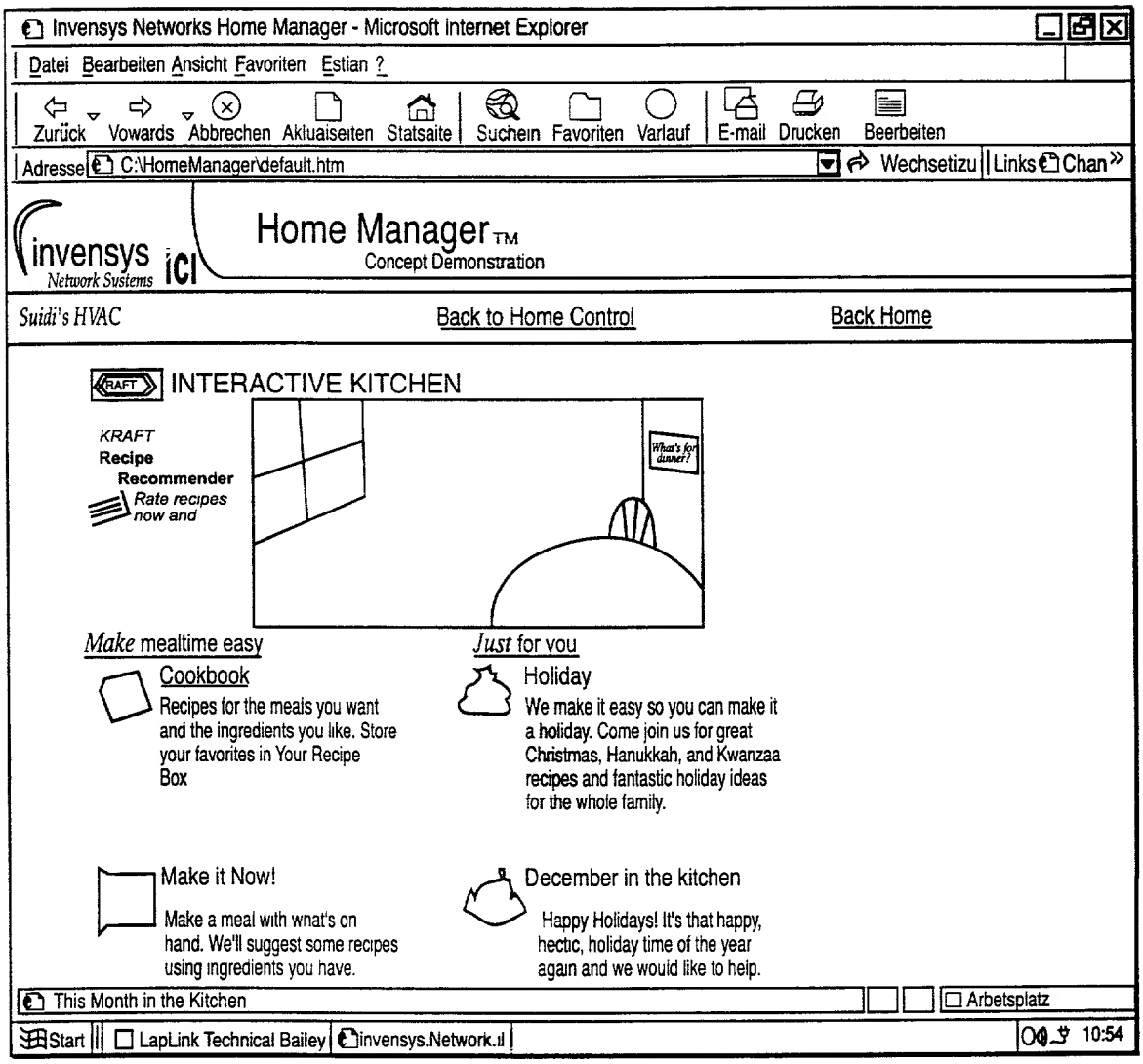

Invensys Networks Home Manager - Microsoft Internet Explorer
Datei Bearbeiten Ansicht Favoriten Estian ?
Zurück Vowards Abbrechen Akluaiseiten Statsaite Suchein Favoriten Varlauf E-mail Drucken Beerbeiten
Adresse C:\HomeManager\default.htm Wechsetizu Links Chan
invensys Network Systems ICI
Home Manager™
Concept Demonstration
Suidi's HVAC
Back to Home Control
Back Home
KRAFT INTERACTIVE KITCHEN
KRAFT
Recipe
Recommender
Rate recipes now and
What's for dinner?
Make mealtime easy
Cookbook
Recipes for the meals you want and the ingredients you like. Store your favorites in Your Recipe Box
Just for you
Holiday
We make it easy so you can make it a holiday. Come join us for great Christmas, Hanukkah, and Kwanzaa recipes and fantastic holiday ideas for the whole family.
Make it Now!
Make a meal with what's on hand. We'll suggest some recipes using ingredients you have.
December in the kitchen
Happy Holidays! It's that happy, hectic, holiday time of the year again and we would like to help.
This Month in the Kitchen
Arbetsplatz
Start LapLink Technical Bailey invensys.Network.il 10:54

FIG. 14

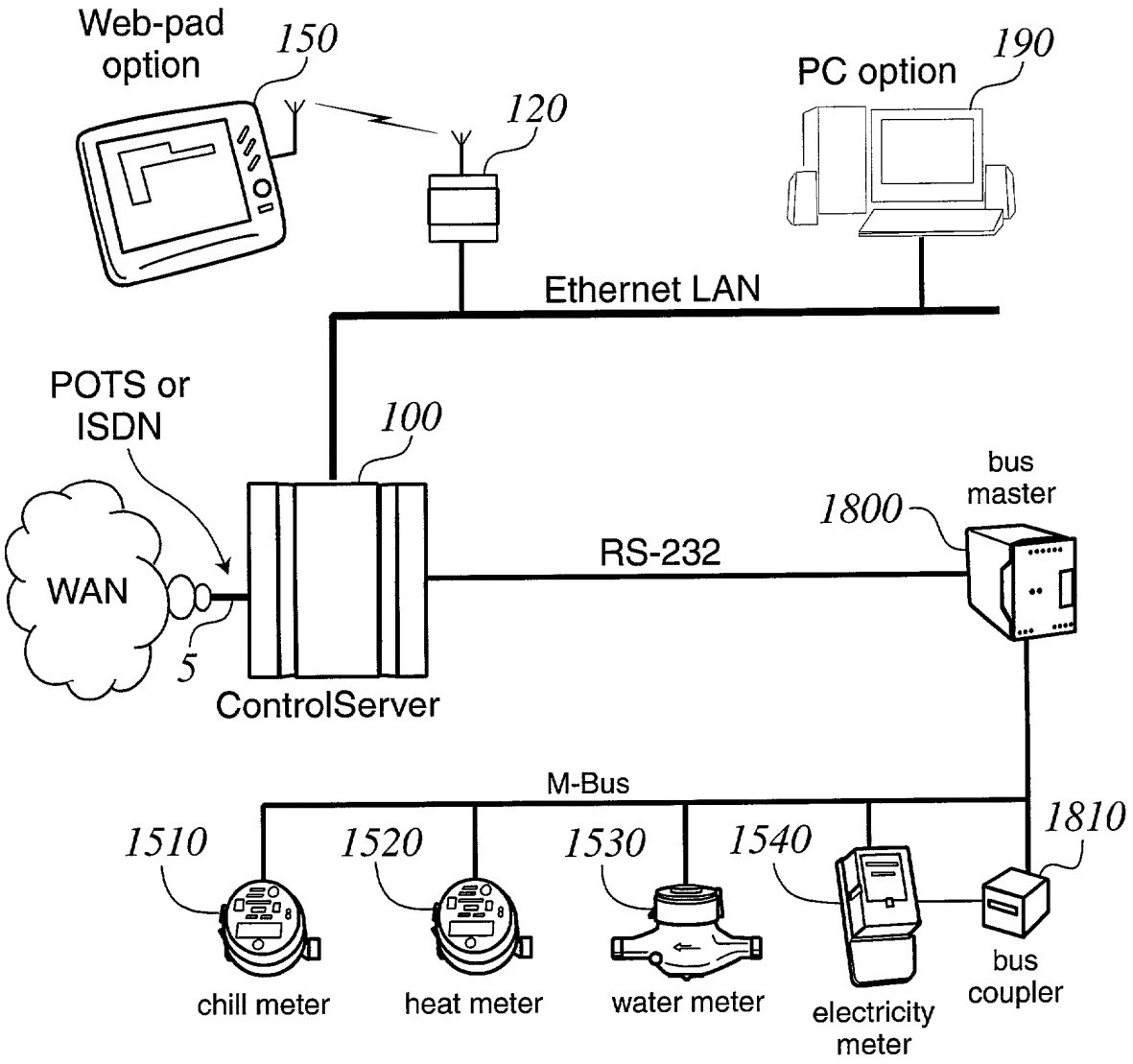

Web-pad option
150
120
PC option
190
Ethernet LAN
POTS or ISDN
100
bus master
1800
RS-232
WAN
5
ControlServer
M-Bus
1510
1520
1530
1540
1810
chill meter
heat meter
water meter
electricity meter
bus coupler

FIG. 15

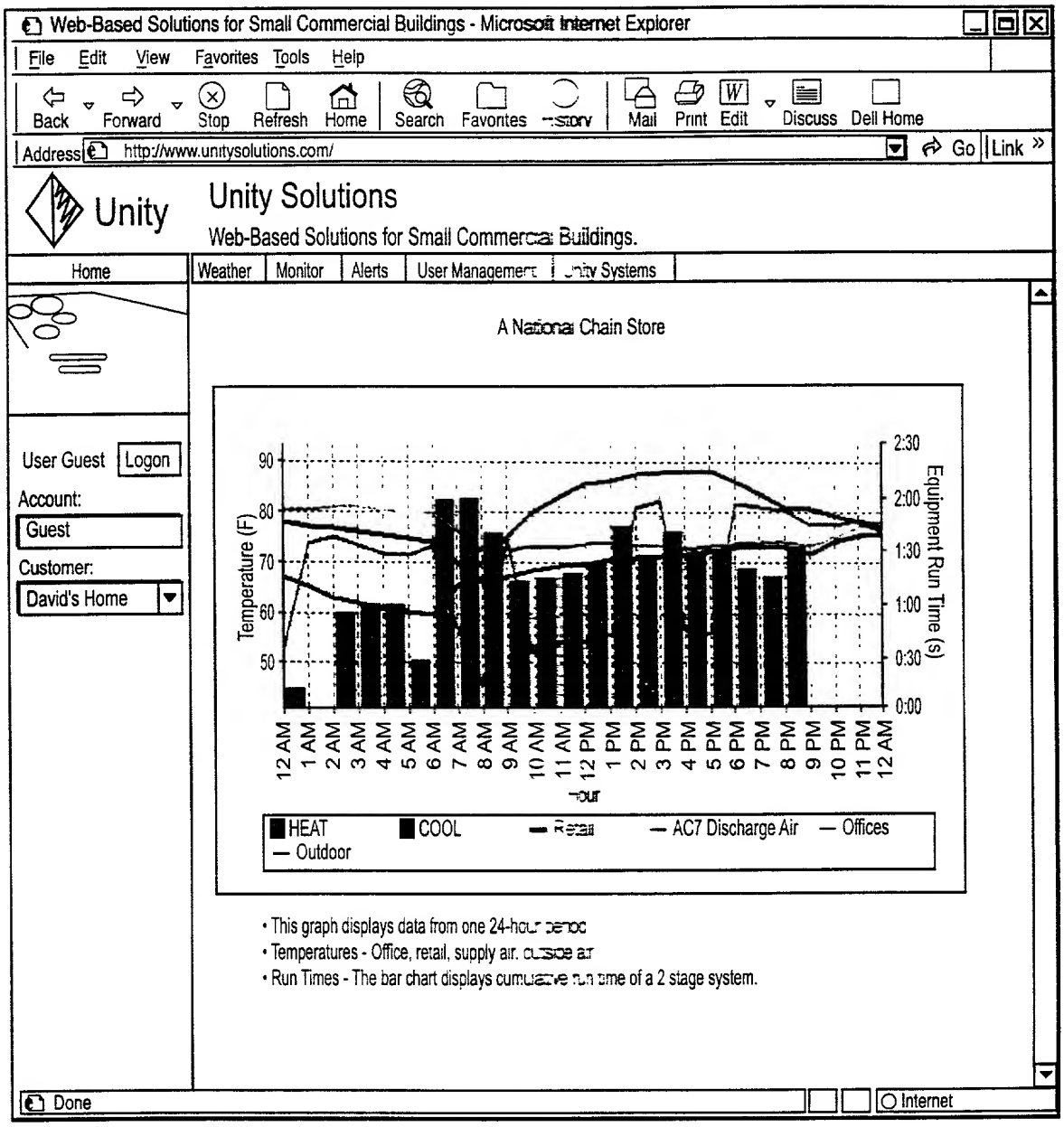

Web-Based Solutions for Small Commercial Buildings - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Dell Home
Address http://www.unitysolutions.com/
Go Link
Unity
Unity Solutions
Web-Based Solutions for Small Commercial Buildings.
Home
Weather Monitor Alerts User Management Unity Systems
A National Chain Store
User Guest Logon
Account:
Guest
Customer:
David's Home
Temperature (F)
Equipment Run Time (s)
90 80 70 60 50
2:30 2:00 1:30 1:00 0:30 0:00
12 AM 1 AM 2 AM 3 AM 4 AM 5 AM 6 AM 7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM 8 PM 9 PM 10 PM 11 PM 12 AM
Hour
HEAT COOL Retail AC7 Discharge Air Offices
Outdoor
• This graph displays data from one 24-hour period
• Temperatures - Office, retail, supply air, outside air
• Run Times - The bar chart displays cumulative run time of a 2 stage system.
Done
Internet

FIG. 16

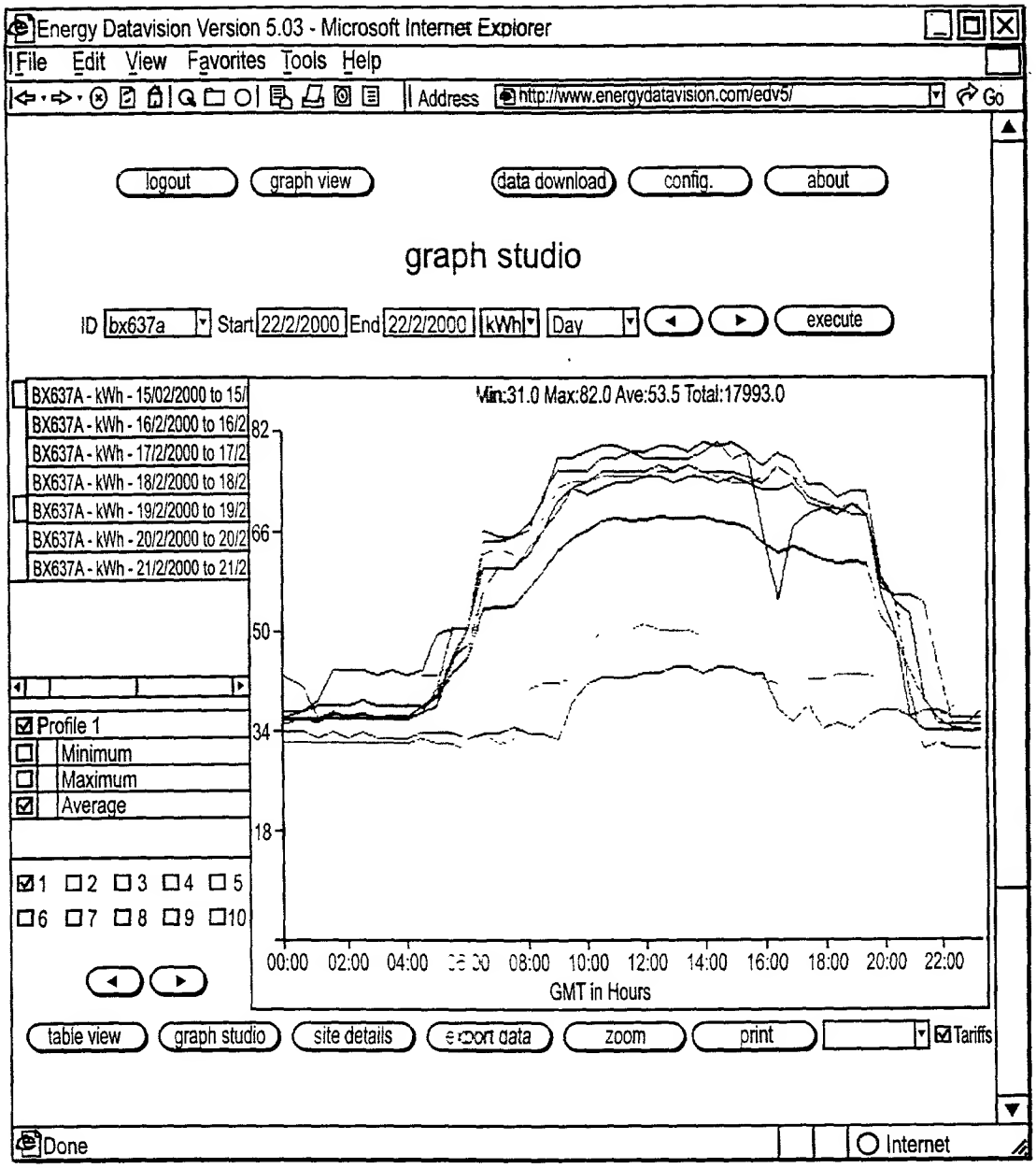

Energy Datavision Version 5.03 - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://www.energydatavision.com/edv5/
Go
logout
graph view
data download
config.
about
graph studio
ID bx637a
Start 22/2/2000
End 22/2/2000
kWh
Day
execute
BX637A - kWh - 15/02/2000 to 15/
BX637A - kWh - 16/2/2000 to 16/2
BX637A - kWh - 17/2/2000 to 17/2
BX637A - kWh - 18/2/2000 to 18/2
BX637A - kWh - 19/2/2000 to 19/2
BX637A - kWh - 20/2/2000 to 20/2
BX637A - kWh - 21/2/2000 to 21/2
Min:31.0 Max:82.0 Ave:53.5 Total:17993.0
82
66
50
34
18
Profile 1
Minimum
Maximum
Average
1 2 3 4 5
6 7 8 9 10
00:00 02:00 04:00 08:00 10:00 12:00 14:00 16:00 18:00 20:00 22:00
GMT in Hours
table view
graph studio
site details
export data
zoom
print
Tariffs
Done
Internet

FIG. 17

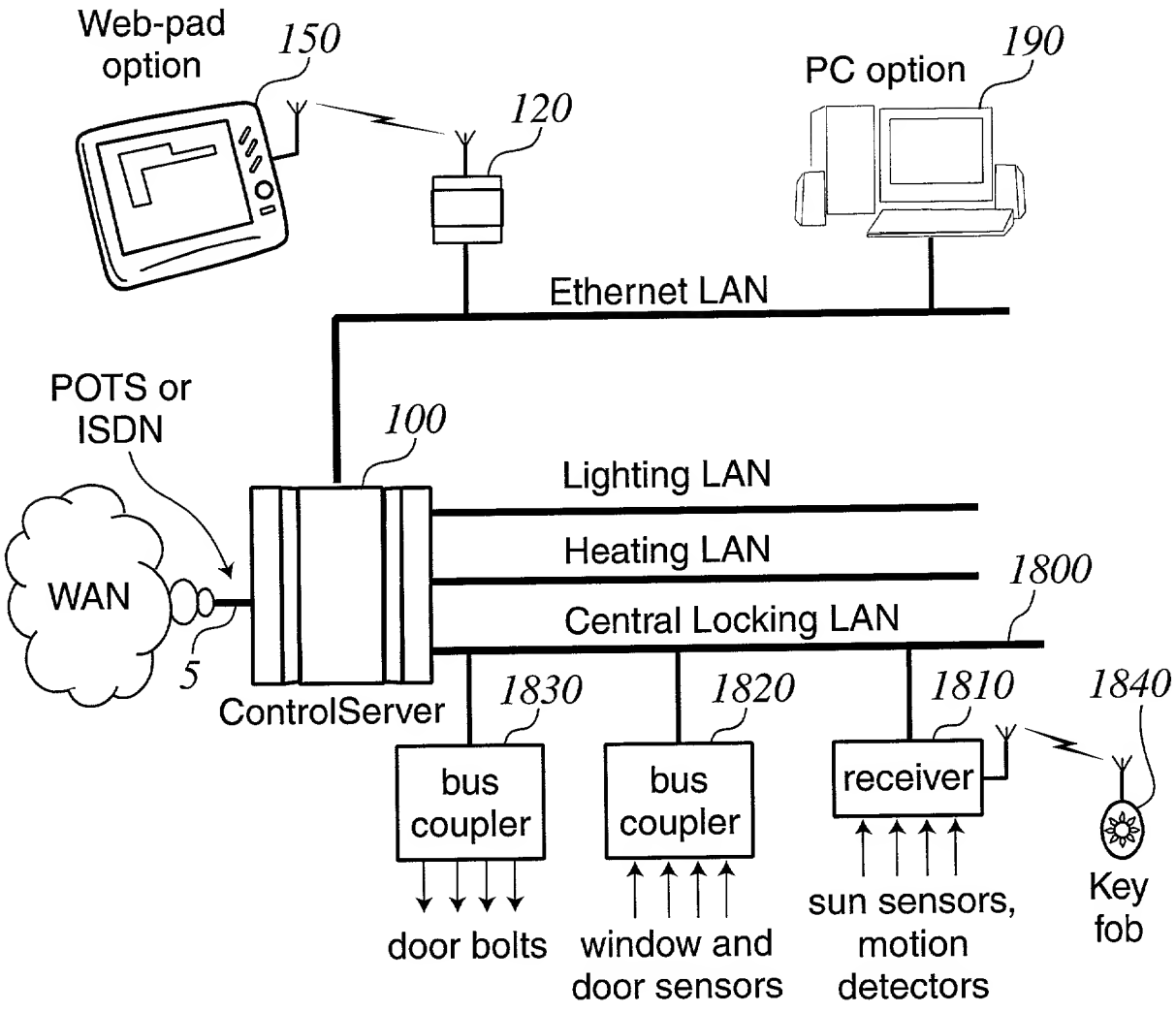

Web-pad option
150
120
PC option
190
Ethernet LAN
POTS or ISDN
100
Lighting LAN
Heating LAN
1800
Central Locking LAN
WAN
5
ControlServer
1830
1820
1810
1840
bus coupler
bus coupler
receiver
door bolts
window and door sensors
sun sensors, motion detectors
Key fob

FIG. 18

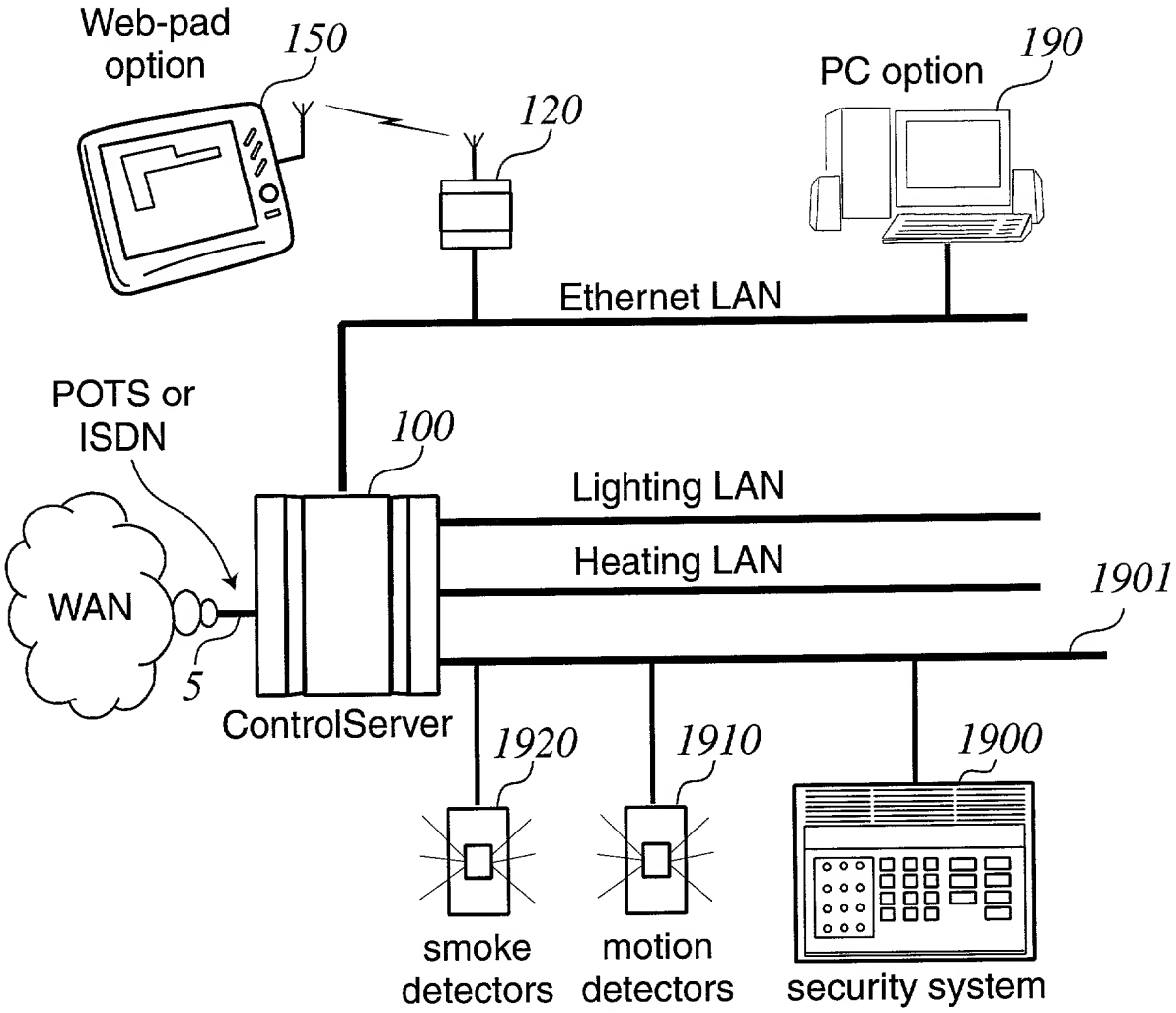

Web-pad
option
150
120
PC option
190
Ethernet LAN
POTS or
ISDN
100
Lighting LAN
Heating LAN
1901
WAN
5
ControlServer
1920
1910
1900
smoke
detectors
motion
detectors
security system

FIG. 19

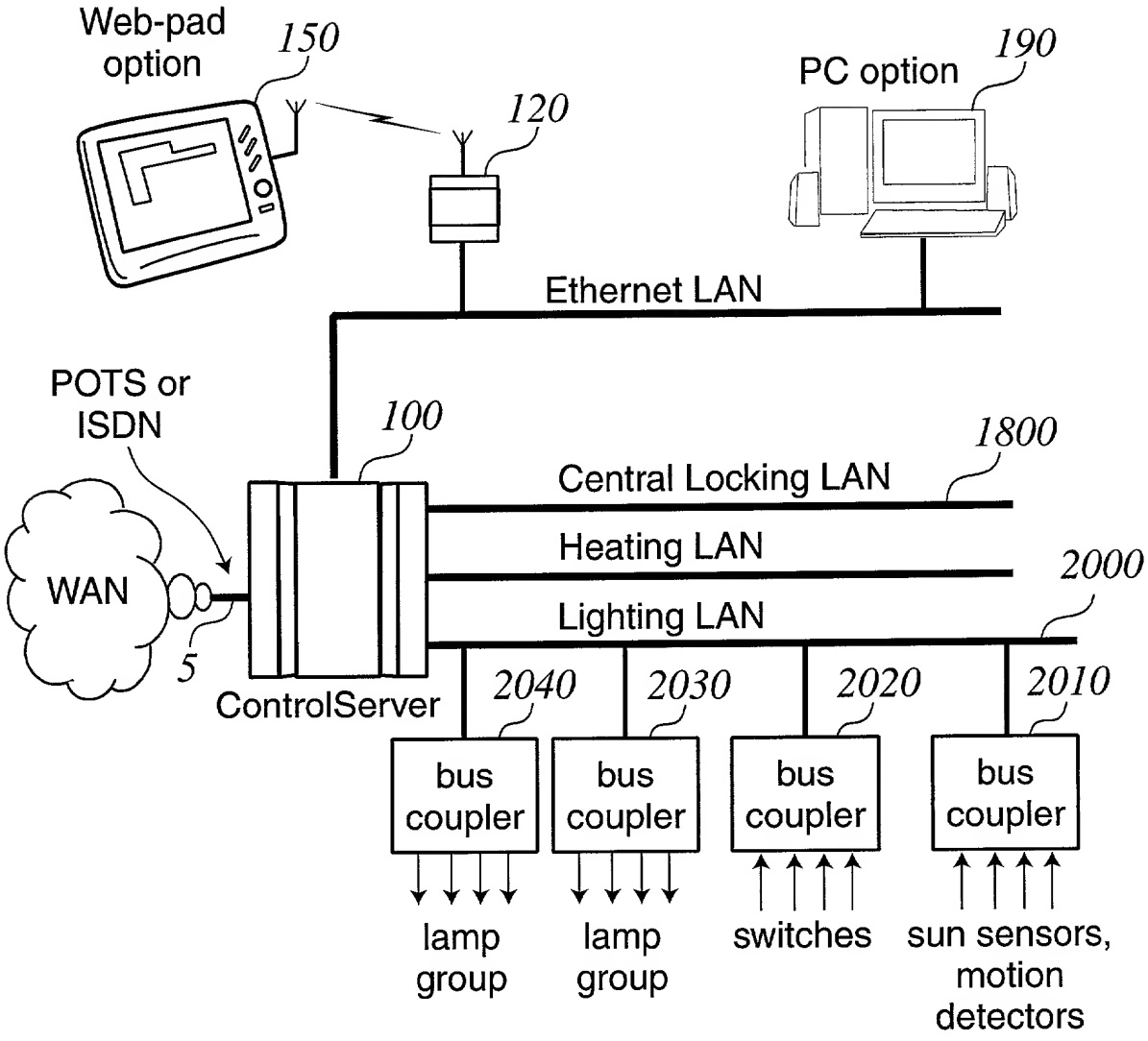

Web-pad option
150
120
PC option
190
Ethernet LAN
POTS or ISDN
100
1800
Central Locking LAN
Heating LAN
2000
Lighting LAN
WAN
5
ControlServer
2040
2030
2020
2010
bus coupler
bus coupler
bus coupler
bus coupler
lamp group
lamp group
switches
sun sensors, motion detectors

FIG. 20

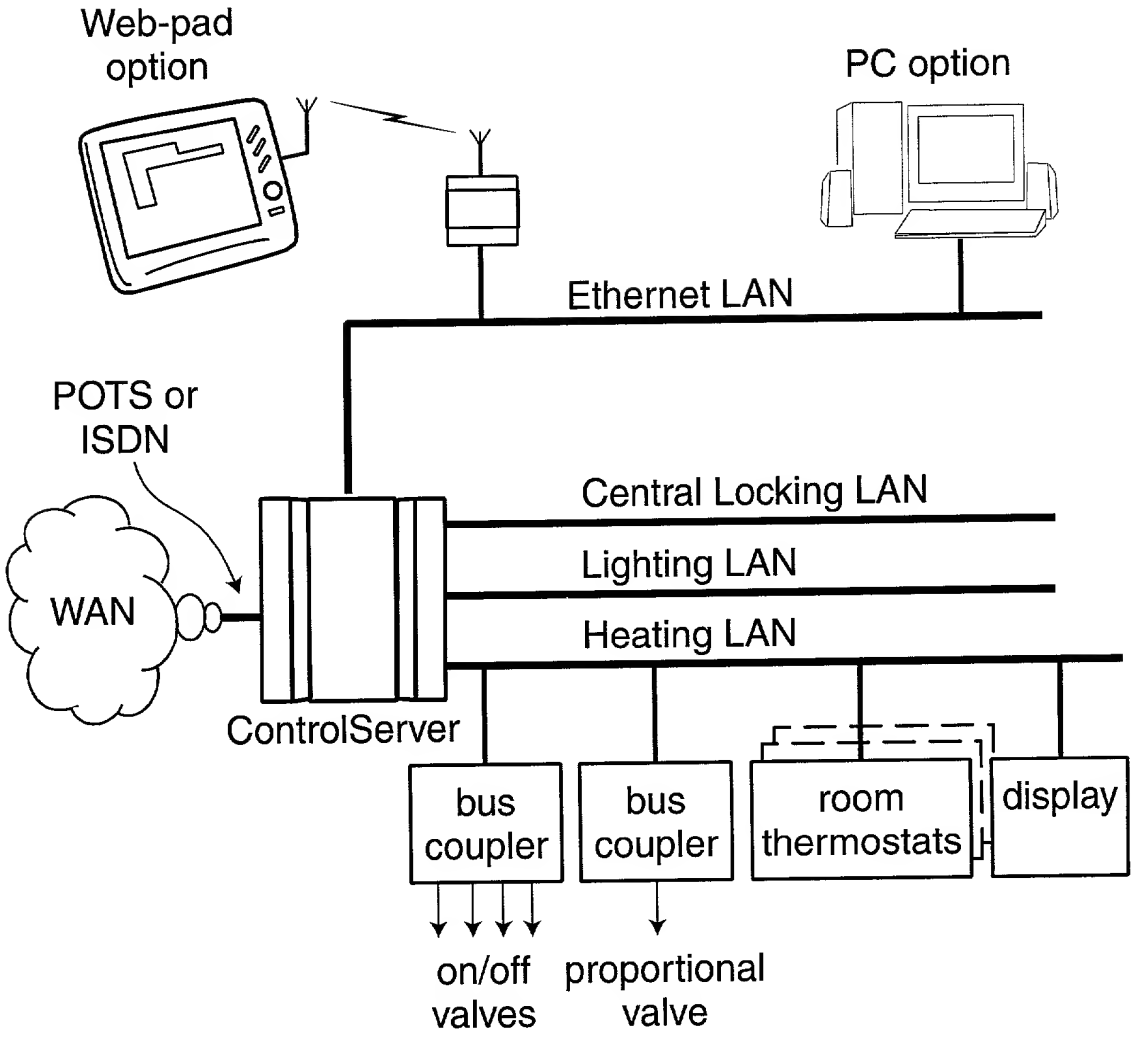

Web-pad
option
PC option
Ethernet LAN
POTS or
ISDN
Central Locking LAN
Lighting LAN
Heating LAN
WAN
ControlServer
bus
coupler
bus
coupler
room
thermostats
display
on/off
valves
proportional
valve

FIG. 21

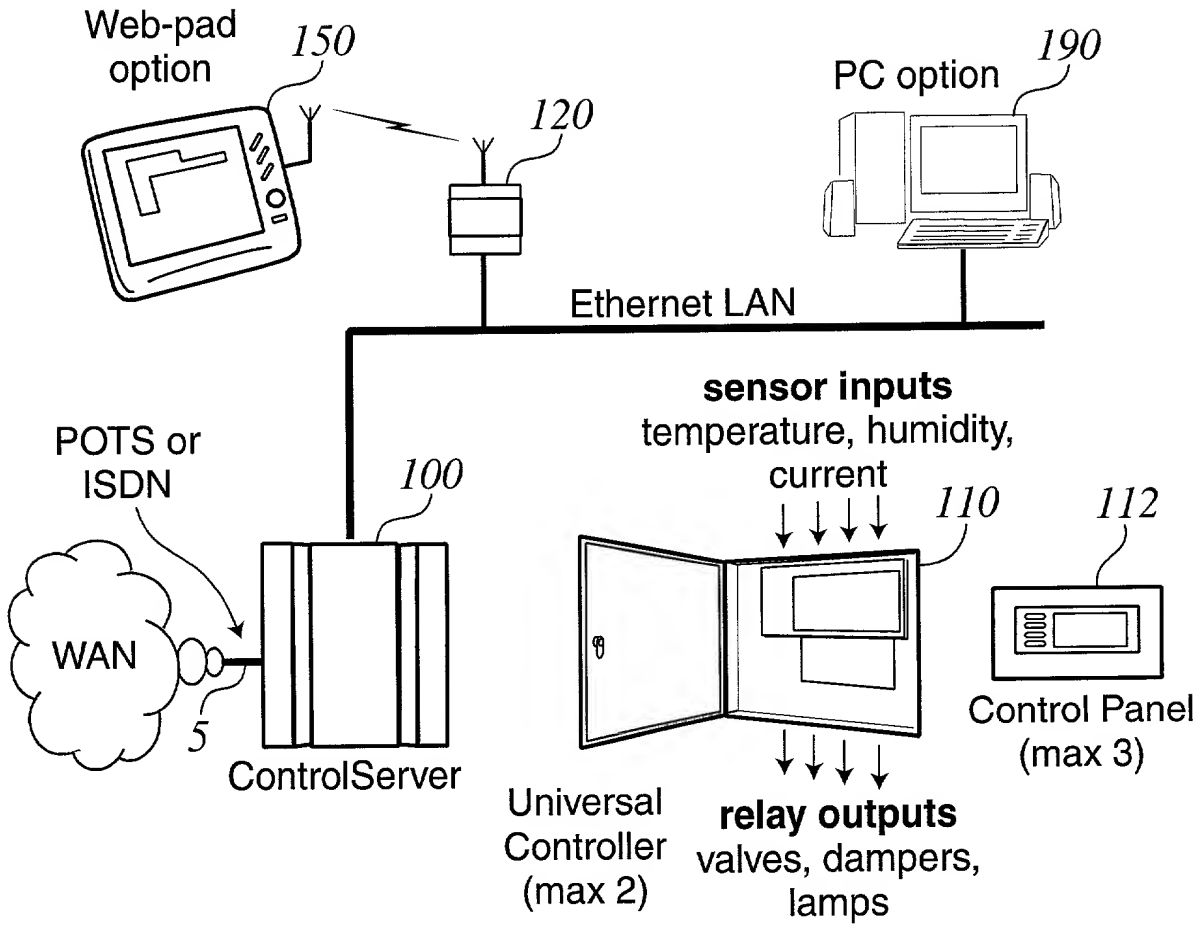

Web-pad
option
150
120
PC option
190
Ethernet LAN
sensor inputs
temperature, humidity,
current
POTS or
ISDN
100
110
112
WAN
5
ControlServer
Universal
Controller
(max 2)
relay outputs
valves, dampers,
lamps
Control Panel
(max 3)

FIG. 22

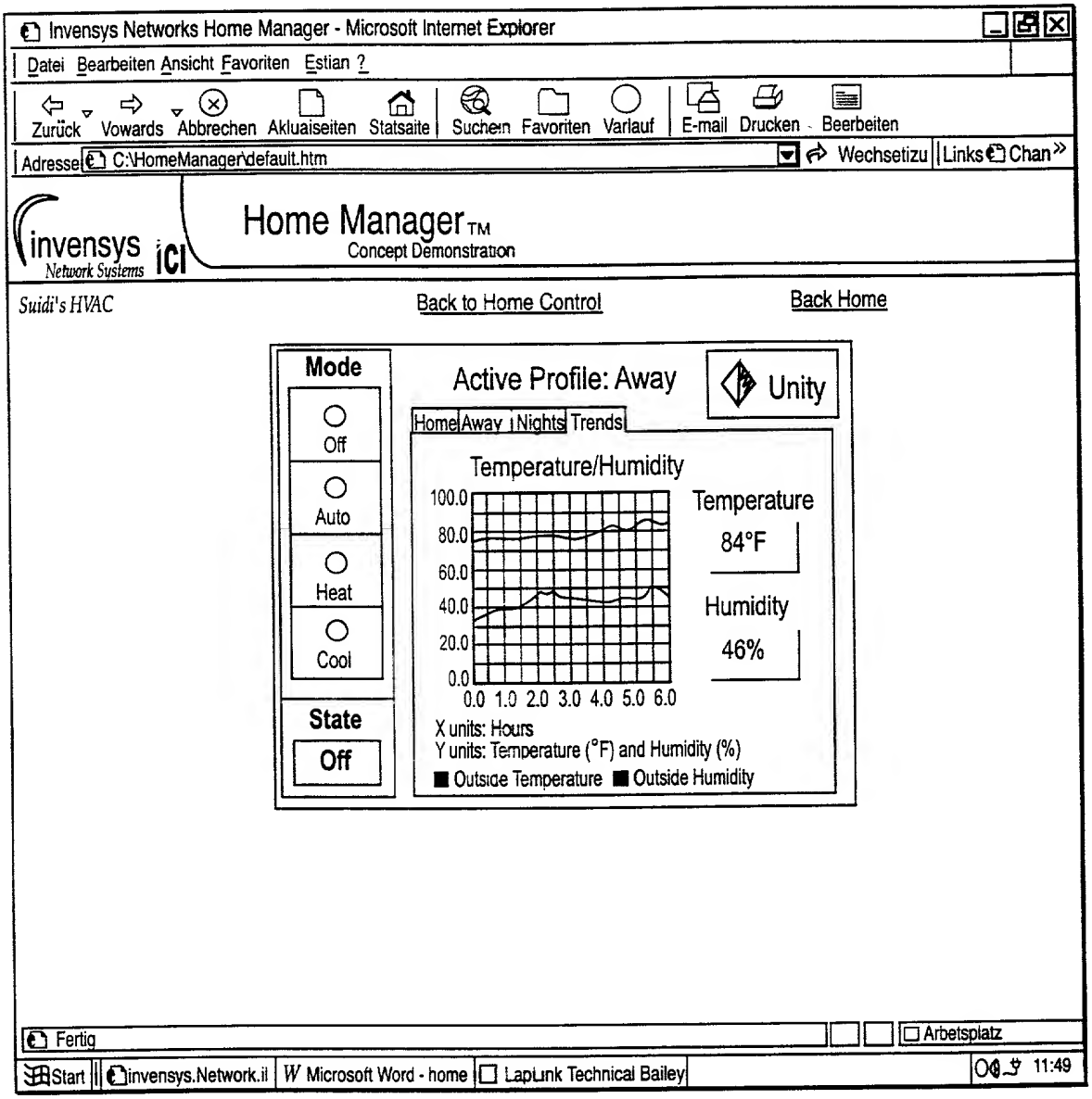

Invensys Networks Home Manager - Microsoft Internet Explorer
Datei Bearbeiten Ansicht Favoriten Estian ?
Zurück Vowards Abbrechen Akluaiseiten Statsaite Suchen Favoriten Varlauf E-mail Drucken Beerbeiten
Adresse C:\HomeManager\default.htm
Wechsetizu Links Chan
invensys Network Systems ici
Home Manager TM
Concept Demonstration
Suidi's HVAC
Back to Home Control
Back Home
Mode
Off
Auto
Heat
Cool
State
Off
Active Profile: Away
Unity
Home Away Nights Trends
Temperature/Humidity
100.0
80.0
60.0
40.0
20.0
0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0
X units: Hours
Y units: Temperature (°F) and Humidity (%)
Outside Temperature Outside Humidity
Temperature
84°F
Humidity
46%
Fertig
Arbetsplatz
Start
invensys.Network.il
Microsoft Word - home
LapLink Technical Bailey
11:49

FIG. 23

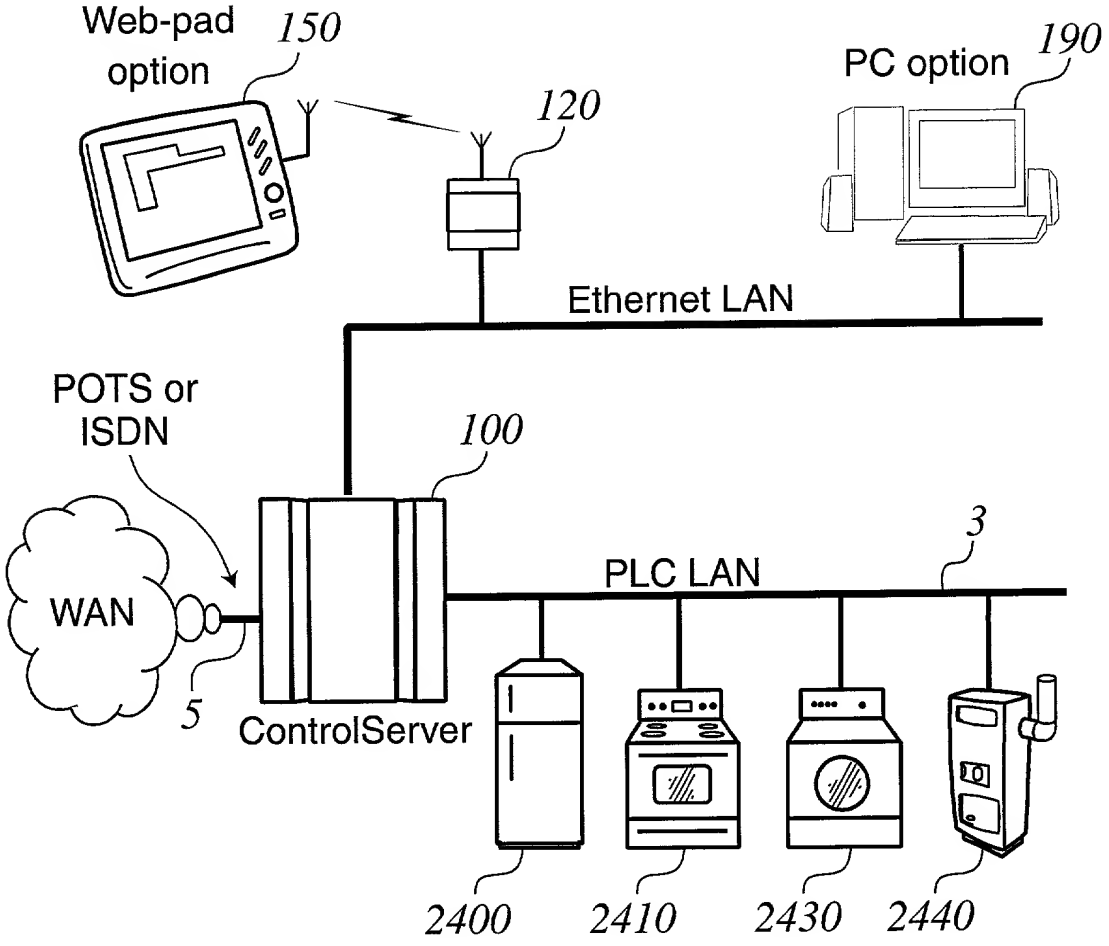

Web-pad
option
150
120
PC option
190
Ethernet LAN
POTS or
ISDN
100
3
PLC LAN
WAN
5
ControlServer
2400
2410
2430
2440

FIG. 24

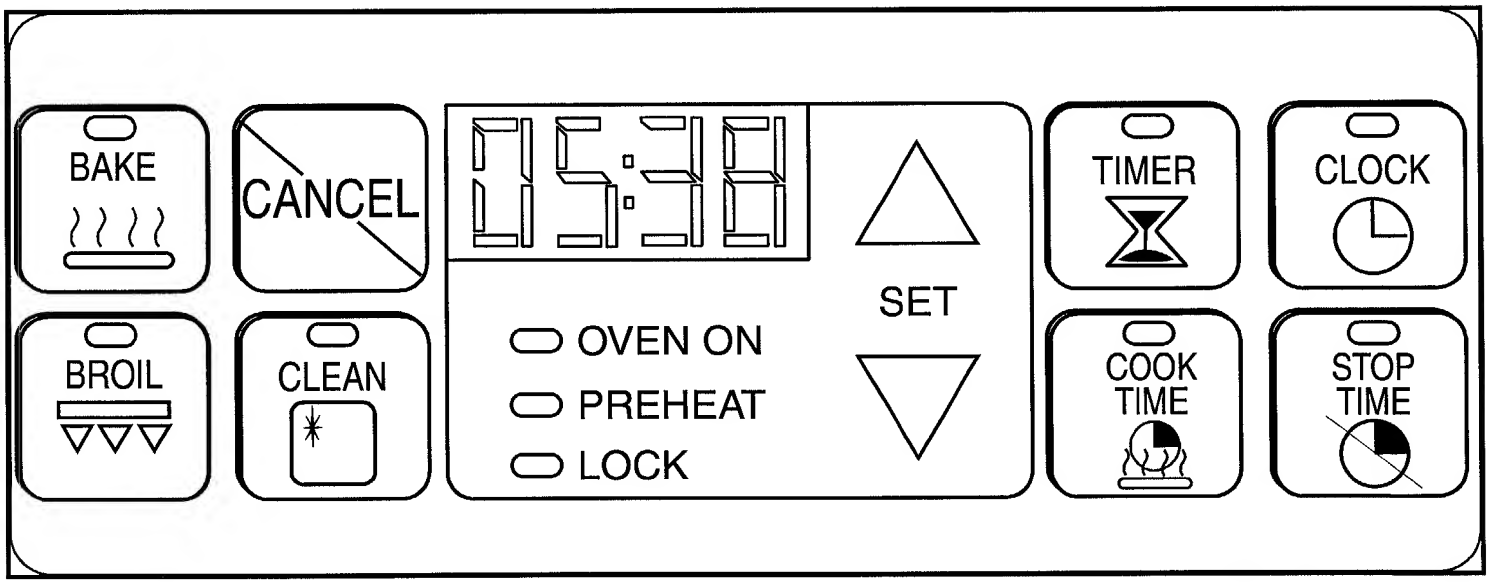

BAKE
CANCEL
05:30
SET
TIMER
CLOCK
BROIL
CLEAN
OVEN ON
PREHEAT
LOCK
COOK TIME
STOP TIME

FIG. 25

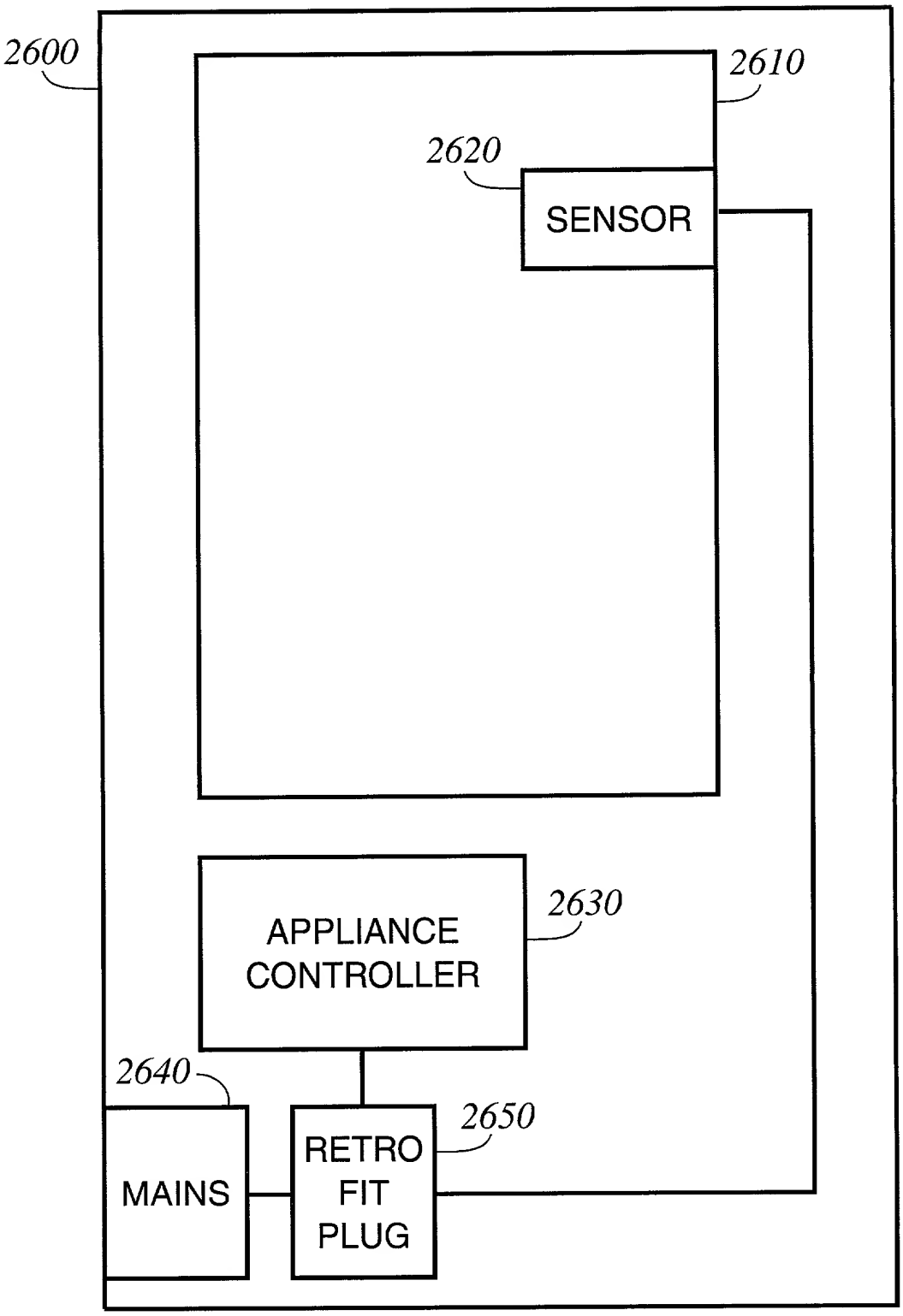

2600
2610
2620
SENSOR
APPLIANCE CONTROLLER
2630
2640
MAINS
RETRO FIT PLUG
2650

FIG. 26a

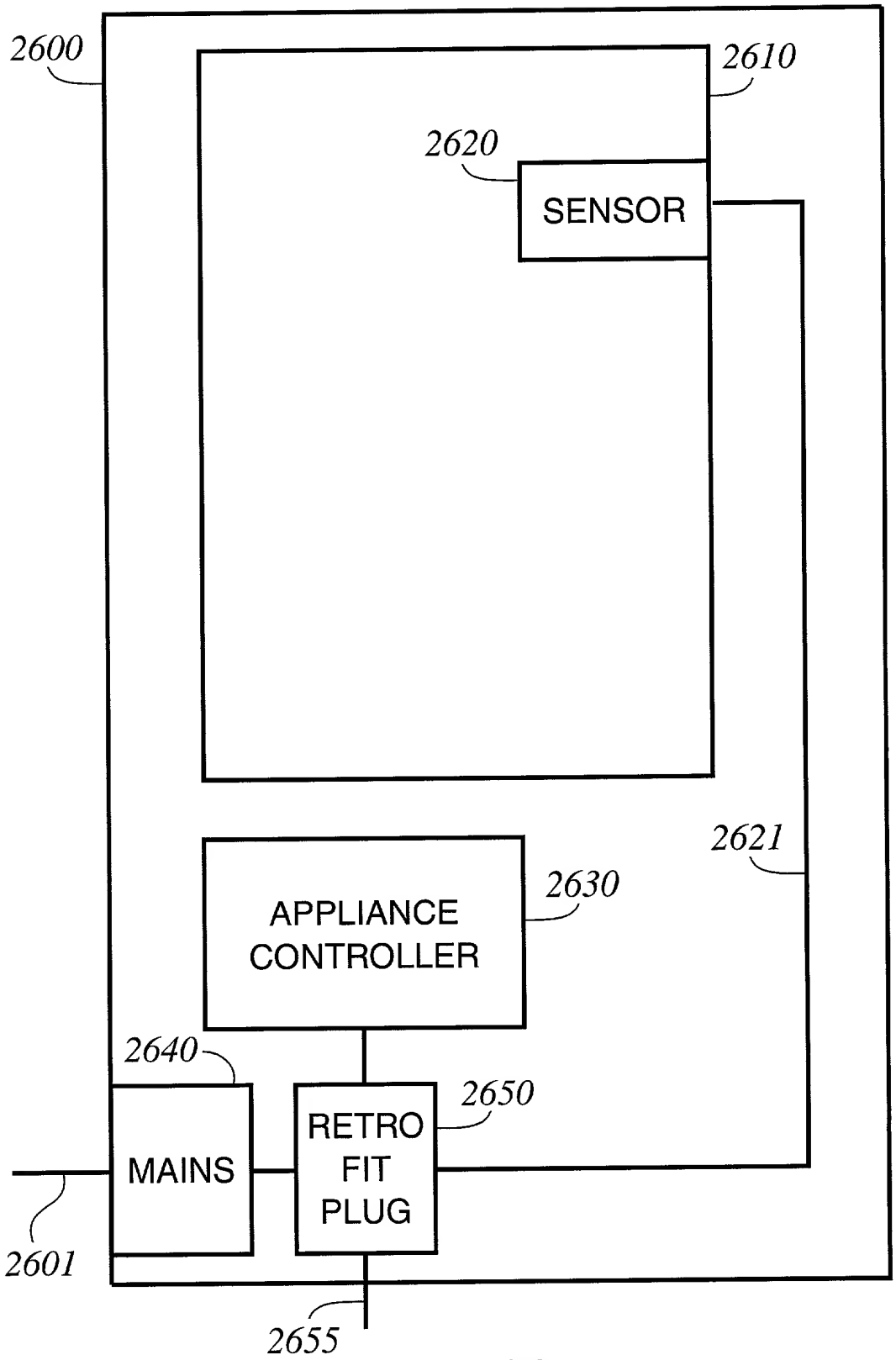

2600
2610
2620
SENSOR
2621
APPLIANCE CONTROLLER
2630
2640
2650
MAINS
RETRO FIT PLUG
2601
2655

FIG. 26b

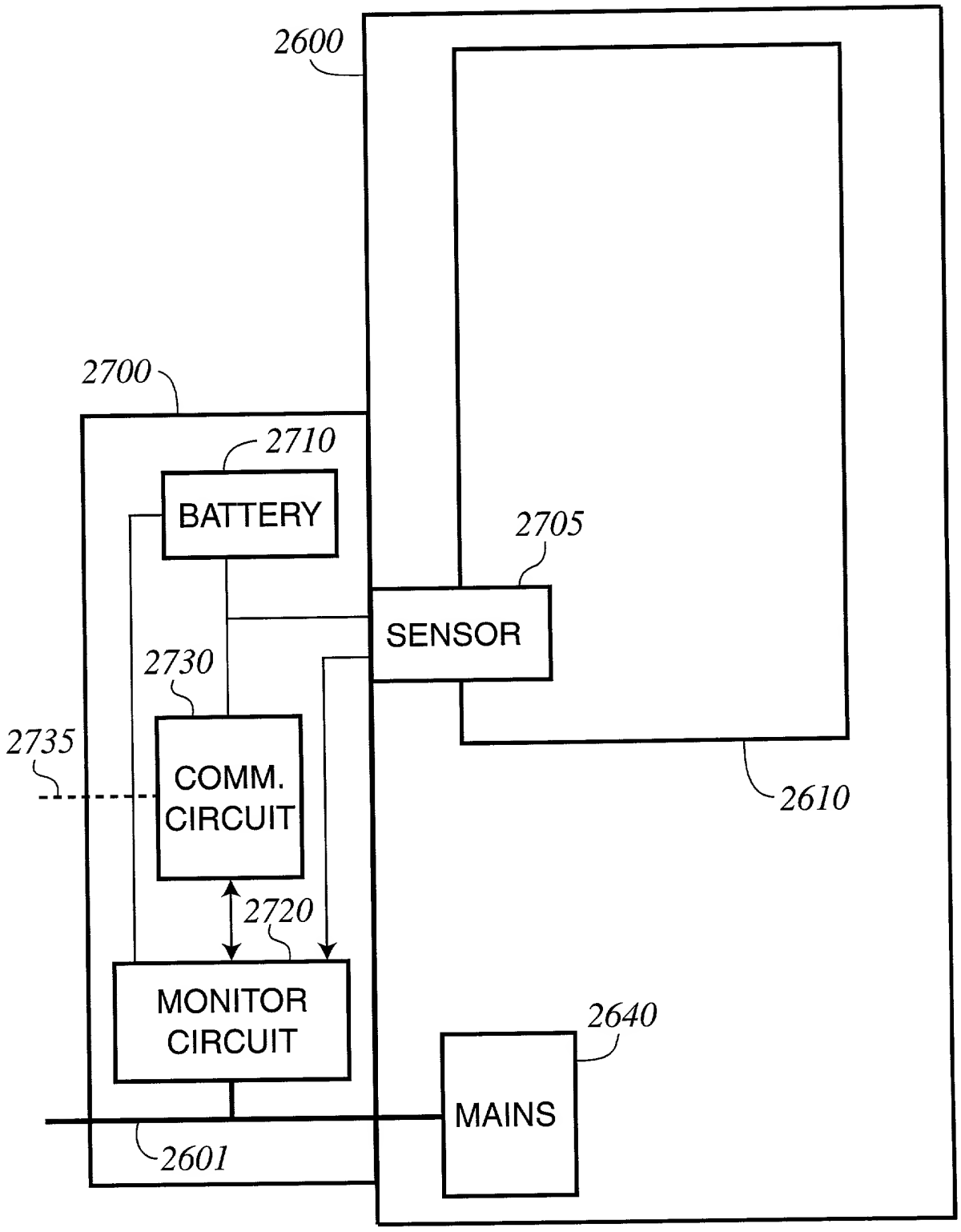

2600
2700
2710
BATTERY
2705
SENSOR
2730
2735
COMM.
CIRCUIT
2610
2720
MONITOR
CIRCUIT
2640
MAINS
2601

FIG. 27a

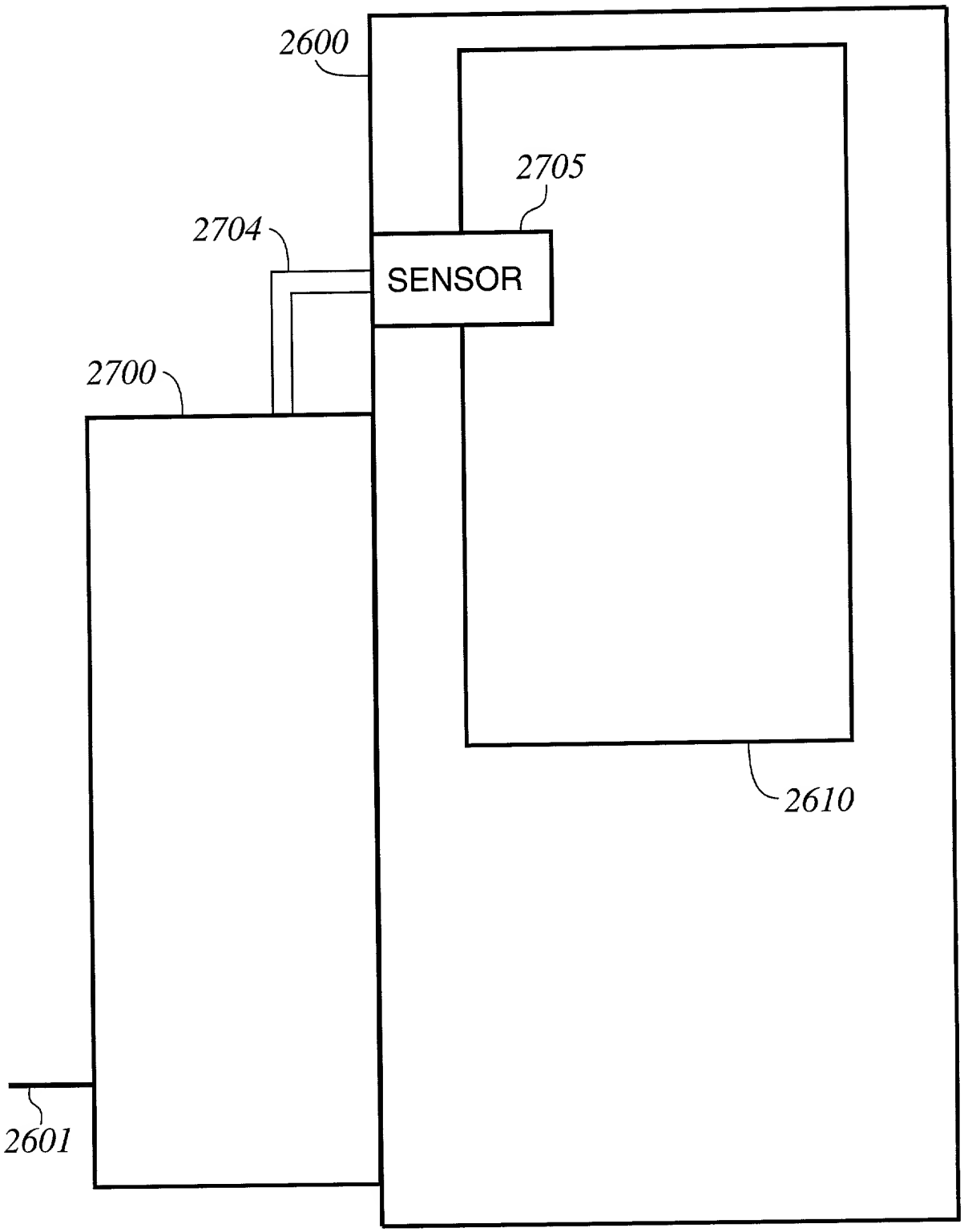


FIG. 27b